# Sacramento Medical Times.

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## A CLINICAL LECTURE,

By PROF. H. NOTHNAGEL, Vienna.

### Syphilis of the Brain.

*Gentlemen:* The patient whom I now bring before you is aged 29 years, and states that he acquired syphilis three years ago. Some time after the syphilitic infection, he observed that his vision began to diminish, and he was seized with severe headache. After the prolonged use of iodine waters, the power of sight improved, and the headache at the same time disappeared. In August, 1887, the headache returned, and was exceedingly severe; at the same time the patient was also affected with weakness in the right leg and arm. The symptoms thus varied very frequently; the present condition of the patient, viz: paralysis of the left arm and leg, set in in November of last year. I have already, on previous occasions, directed your attention to the fact that such a frequent change in the symptoms led us, with a strong probability of being correct, to suggest that we had to deal with a syphilitic affection of the central nerve system.

On examination, we find, as you are aware, a motor weakness of the right leg and arm. On deep inspiration, the lower portion of the thorax expands more freely on the left side that on the right; hence, there is here a slight degree of paresis of the muscles of the right side of the chest. As to the face, you may remark that when the patient is directed to show his teeth, the right angle of the mouth is slower in its movement than the left; the upper branches of the facial nerve are less affected, and the paresis is referred to those filaments which supply the muscles of the mouth. This kind of paralysis, as you are aware, points to a central seat of the cause. When the patient laughs involuntarily, we observe that the right side shows almost the same contractions as the left. I wish to emphasize this fact, as I had told you on an earlier occasion, that there were paralyses of the facial nerve in which the paralyzed muscles, when stimulated by psychical influence, showed the same contractions as the healthy ones. I had also told you that there were paralyses of the facial nerve in which the paralysis was observed on voluntary movements, and absent in the case of involuntary function. I had directed your attention to the fact that, at least in my opinion, this condition permitted us to draw a certain conclusion with reference to the cause of the disease. In my opinion, the nerve fibres which lead from the thalamus opticus through the corona radiata to the cerebral cortex, must be quite intact in such a case; on the other hand, the connection between the latera funiculi pyramidales and the cerebral cortex must be interrupted. Our observations do not admit of any other conclusion, which was recently confirmed by the experiments of Bechtereff. These experiments seem to prove that the optic thalamus dominates the movements which are due to a psychical influence. In our case, we must, therefore, conclude that the seat of the lesion should be sought for in the lateral funiculi pyramidales, and that the connection between the optic thalamus and the cerebral cortex is quite intact.

The speech of our patient is somewhat slow, but in any case there is no dysarthria. There is no paralysis of the motor part of the fifth nerve. The left eye cannot be turned outwards, hence we have to deal with a paralysis of the left abducens nerve. This is a very remarkable symptom, as the extremities and the facial nerve are paralyzed on the right side. As to the color of the extremity, we remark that the right hand is darker and more livid than the left; at the beginning of the disease it was also warmer than the left hand; we thus infer a slight degree of vasomotor disturbance. Examination of the sensibility shows that punctures on the left side of the face are not felt; this is more distinctly pronounced towards the front; the difference of sensibility reaches as far as the neck. This implies the presence of anesthesia of the fifth nerve, again on the left side. The taste is impaired on the left side, whereas the sense of smell shows no difference. The power of sight is impaired on the left side, owing to the presence of pannus. The rest of the organs are normal. The urine is yellow in color, and slightly cloudy, but contains no albumin.

When we have to deal with cerebral affections, we must first answer two questions, viz: What is the morbid process, and where is the seat of the affection? I wish first to answer the question regarding the seat of the morbid process. In the common cases of cerebral hemiplegia we most frequently find motor paralysis of the upper and lower extremities, as well as a paralysis of that part of the facial nerve which supplies the mouth, and the hypoglossal nerve; besides this, slight sensory and vasomotor paralysis may be present. There is no doubt that in our patient we have to deal with an analogous case, but we also observe here two very remarkable symptoms. First, the abducens nerve, in our case, is also affected; among 360 cases of common hemiplegia, we meet with 330 in which the eye muscles are not affected. This is explained by the seat of the disease; the common cerebral hemiplegia is due to a lesion in the anterior part of the cerebrum, whereas the nucleus of the eye-muscle-nerves are situated much deeper in the grey matter of the third ventricle. The participation of the abducens nerve, in our case, therefore, points to a particular seat of the cause of the affection. We not only have to exclude the optic thalamus, owing to the special character of the paralysis of the facial nerve, but we must even exclude the anterior part of the brain; the seat of the affection must be sought for in the posterior cranial fossa, or in the substance of the pons varoli.

What is more strange in our case is the fact that the abducens nerve is not affected on the same side on which the paralysis of the extremities and the facial nerve is observed, but on the opposite one. I had also told you that in the case of common cerebral paralyses, the sensibility was either not at all impaired, or only to a slight degree. In our case, however, the fifth nerve is also affected, which is an unusually rare occurrence in cerebral hemiplegia ; the more striking symptom is that the fifth nerve is anesthetic on the left side. This was first exactly studied by Gubler, of Paris, who has described it under the name of "alternate paralysis," or, as I have translated it into German, *die wechselständize Lähmung*. With reference to the facial nerve and the extremities, this is explained by the following anatomical conditions. The decussation of the facial nerves in the cerebrum lies higher than that of the nerves for the extremities—*i e.*, in the upper part of the pons varoli. Now, when a cerebral affection has its seat in the upper part of the pons, the nerves for the extremities and the facial nerves will be affected before their decussation ; hence, there will be no alternate paralysis in such a case. When, however, the lesion is situated on the inferior part of the pons, beneath the decussation of the facial nerves, the nerves for the extremities will be affected for the decussated part, and the facial nerve for the same side. In this way the alternate paralysis is to be explained. In such a case we may positively ascertain the seat of the affection ; the cause of the disease is situated in the posterior part of the pedunculus cerebri, in that part where it emerges from the pons varoli. Alternate paralayses have also been observed with reference to the motor oculi nerve, the abducens nerve, the fifth nerve and the nerves for the extremities.

If we now try to answer the question as to where the seat of the affection is to be sought in our case, we have either to suppose that two foci exist, or that the focus must be situated at a point where the fifth nerve and the abducens nerve of the one side, and the facial nerve and the nerves for the extremities of the other side, are simultaneously affected. This could be in the region of the pons varoli, as such paralayses have been observed, and furthermore, we would have to localize the affection in the upper part of the pons. On the other hand, we may bear in mind a diseased process which has an intracerebral as well as a basal position. It is difficult to say which of these two suppositions is correct. There is an old diagnostic maxim which says when, in the case of an affection, there exist various symptoms which point to different causes, and all these symptoms may be reduced to one single cause without overlooking established scientific facts, it is always more correct to summarize the symptoms, and to explain them by the suggestion of one cause. I must, however, remark that there are also cases in which we may admit the presence of two foci with certainty. In accordance with the foregoing principle, I am inclined to believe in one focus, viz : in the upper part of the pons varoli.

An equally interesting question is that respecting the cause of the paralysis. I ask you to bear in mind the following principle : when a person under the age of 40 becomes hemiplegic, we think of a certain number of causes, and exclude a certain number. We exclude a common hemorrhage, which is usually observed in advanced life, and is due to a disease of the blood vessels and to thrombotic malacia, to thrombosis as the result of atheroma of the blood vessels. When, however, a young person becomes suddenly hemiplegic, we must, in the first place, think of nephritis, attended with cerebral hemorrhage, for in young people we not infrequently meet with hemorrhage as the result of contracted kidney. In the second place, we think of embolus, when the patient is affected with cardiac failure, or when another condition which gives origin to embolus is present. In our case, we can exclude both of these, as the disease has gradually developed, and as we find no nephritis or cardiac affection. When the paralysis develops slowly, as in our case, we first think of a syphilitic affection of the cerebrum; and the second possibility would be the presence of tumors in the brain. I wish to add now that in the case of syphilis of the brain or cerebral tumors, the paralysis may also suddenly set in; hence we must not exclude the presence of these diseases when the paralysis supervenes quite suddenly. In our case we have, in the first place, to consider syphilis, owing to the slow development of the paralysis. We have also learned from the history of the disease that the symptoms have changed very frequently; the patient was at certain periods affected with paralysis, and on other occasions with headache; he also lost the power of sight; all these symptoms later on improved. This change of the symptoms points to the presence of a syphilitic affection of the brain. In the case of cerebral tumours, such changes in the symptoms do occur, but this is not the rule; they usually show a gradual and constant progress.

We have thus arrived at the discussion of the question bearing on cerebral syphilis, the anatomical conditions of which may be quite different. We know that syphilitic disease may have its seat in the bones, and that gummata or exostoses may be present at the base of the skull; these may exert a pressure on certain nerves, and thus give rise to cerebral symptoms. In another class of cases, we meet with gummata, which develop in the substance of the brain, the so-called syphilomata of the brain. These syphilomata may have a different form, and there are cases in which the gummata are rather solid, and have, then, a similar effect to that of tumors. On the other hand, there are also quite soft gummata, which, when not examined by the microscope, look like syphilitic encephalitis. In a third category of cases, syphilis gives rise to an inflammation of the meninges—the so-called meningitis sclerotica syphilitica. Sclerotic meningitis may have three causes, viz: alcoholism, tuberculosis or syphilis. There are also traumatic forms of sclerotic syphilis, and such a condition is, moreover, observed in lunatics, but not frequently. Heubner has directed our attention to another form of cerebral syphilis. He has proved the existence of affections of the cerebral arteries, the "arteritis syphilitica cerebralis."

I do not wish to dwell upon the anatomical and histological conditions in such cases, and only ask you to bear in mind the following facts: You will easily understand that it is quite immaterial for us to know the cause which has given origin to the development of the thrombosis in such a case. In each case where thrombosis develops in a blood vessel, anemia and ischemia must take place in the region supplied by it, giving rise to necrotic malacia. We, indeed, observe that in the case of syphilitic disease of the blood-vessels, necrotic malacia develops very frequently.

When we take into account all those forms of disease in the brain which are produced by syphilis, we obtain a great number of varying symptoms, and it is due to Wunderlich to have first directed attention to the fact that the constant feature in such cases is the change of the symptoms. I have told you that thrombosis develops gradually; this condition need not be attended by any severe symptoms, when sufficient collateral circulation has been established. When, however, the occlusion of the blood-vessel occurs suddenly, syncopal and epileptic attacks, hemiplegia, disturbances of sensibility, etc., may supervene. Where large arteries are obstructed, and where no collateral circulation takes place, a permanent destruction of the territory which is supplied by the artery, without the possibility of restitution, ensues. You will thus understand that in such cases we may observe quite varying symptoms with reference to motion and sensation; we also observe disturbances, principally psychical, of the most different functions.

The change of the symptoms in our patient makes us first think of arteritis syphilitica. Such an arteritis sometimes gives rise to obstruction of the blood-vessels in some parts, which results in transitory ischemia; for when a collateral circulation has been established, the ischemia disappears. In the case of our patient, obstruction must be present to a high degree, as his condition continues for a rather long time. The question arises as to whether syphilitic meningitis is not also present in our case. We should have to admit such a condition, provided that we suppose there is a basal cause besides the cerebral one. We cannot, however, arrive at any sure conclusion in this respect; we can only with certainty diagnose the presence of syphilitic arteritis.

Now, as to the prognosis: I must state that among all the diseases of the brain those of syphilitic origin give proportionately the most favorable prognosis. Of all cerebral tumors, the syphilitic ones are also the most amenable to treatment. All the syphilitic cerebral affections are not, however, attended with a complete restitution. I remember, myself, several cases in which the most severe forms of hemiplegia and contractures have developed as the result of syphilis. I wish to add the following particulars: You know that we classify the diseases of the nerve system among the so-called late forms of syphilis. A man may become affected with a cerebral syphilitic disease, having acquired syphilis from ten to twenty years previously. On the other hand it may happen that the cerebral symptoms supervene in one year after the date of the infection. I am unable to tell you the reason why the symptoms on one occasion come on at an early period, and why they are observed at a late period in other instances. The development of cerebral symptons usually takes from three to five years after the date of infection. In the case of our patient, three and a half years had elapsed before he became affected.

As to therapeutics, we have to follow an anti-syphilitic course of treatment. The precise method of such a treatment depends on the standpoint which you occupy in syphilo-therapy. I, for one, am of the opinion that we ought to use mercury, and in our case I hold that a mercurial treatment is the best one. In the case of tardy cerebral syphilis, I think that inunctions with mercurial ointment constitute the most reliable and

**the best procedure. I only ask you to bear in mind that this treatment must be very careful, thorough and energetic. You will have to use from one and a half to two grammes daily of the blue ointment. As to the particulars of syphilo-therapy, you will become acquainted with them in the clinic for syphilis, and I do not wish to dwell upon them here. I will only remark that it must be carried out for a long time. You will administer thirty inunctions, then discontinue the treatment for from five to six weeks; then another series of inunctions, and so on. In such a course of treatment you should watch the condition of the gums. You will also give daily from one and a half to two grammes. of the iodide of potassium or the iodide of sodium internally, for many weeks. When you wish to send the patient to a health resort you will, of course, select those mineral waters which contain iodide or sulphuretted waters; and besides this you will follow the usual course of treatment of cerebral affections, such as hydropathic and electric procedures and massage.**

## SURGICAL NOTES AND MEMORANDA.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

The highest interests of science and of common humanity alike demand that, from time to time, the methods employed, the work done and results attained in institutions devoted to the maintenance of the afflicted shall be offered to the medical profession in the form of a scrupulously faithful report. The published records of hospitals, whether military, charitable or private, afford a vast aggregation of facts, data and statistics, whence is derived an important part of the exact as well as theoretical knowledge appertaining to medicine and surgery. Private practitioners, as a rule, find little time for systematic annotation, while the delicacy of the relation existing between themselves and their *clientèle*, to say nothing of the financial obstacle, renders it often-times improper to entrust such a task to an amanuensis. The consequence is that matters of extraordinary interest are wholly lost or imperfectly reported from the memory of the attendant. Moreover it is unquestionably a fact that, when surgery alone is considered, the few cases, which come at long intervals to most general practitioners, partake largely of the nature of exceptional incidents, unlooked for emergencies, or possibly dreaded ordeals, while into the lives of few of us does the practice of systematic surgery enter, as even an approximation to an experience.

Hence it is apparent that a grave responsibility rests upon the favored minority who are brought in daily, almost hourly, contact with that unfortunate class who require an exercise of surgical knowledge with its correlatives, manipulative skill and expertness.

The allusion here is to the debt owed by the hospital surgeon to those who are isolated by distance from the great centres of education, or who, by circumstances, are denied access to the fields whence an experience may be acquired. Nor is this debt wholly cancelled by a tale of wonderful achievement or phenomenal success. Of greater moment to all concerned, is the policy which affects the commonplace, oft-recurring events of daily routine, and serves to revise and readjust rules and maxims to accord with increasing knowledge. There can be found no more appropriate occasion than the present for the discharge of at least a small part of the obligation imposed upon me as surgeon in charge of the Railroad Hospital in this city. Very briefly, and in a somewhat disjointed manner, I shall allude to certain special methods in wound treatment that have proven practicable and efficient. Before entering upon this task specifically, permit me to engage your attention with a few general considerations which may be of interest.

During the past four and a half years, over which period my notes extend, ether has been administered as an anesthetic two hundred and sixty-five times successfully. In no instance has it given rise to serious apprehension regarding the patient's condition, nor have efforts at resuscitation ever become necessary. Delay in securing a perfect condition of anesthesia has not been infrequent, but this is in the main, attributable to imperfect apparatus for its administration rather than to any inherent fault of the agent. The plan of administration in vogue during most of this period has been by the vapor method of Müller. A few administrations by means of Parkinson's modification of Ormsby's inhaler have given results wholly satisfactory in point of expenditure of ether, economy of time and safety to the patient. In future we shall profit by experience and employ the "Ormsby inhaler."

Since January 1st, 1884, when antiseptic wound treatment was introduced in this institution, major amputations have been done upon thirteen individuals. Of these, three submitted to amputation of the thigh, four of one leg, two of both legs, one of the foot and one leg, (the latter being a reamputation) one of the foot, and two of the forearm. Upon the thirteen persons, eighteen separate operations were performed, sixteen having been done in the hospital and two before entrance. They are classified as follows: Thigh amputations, 3; leg (including reamputations), 11; foot, 2; forearm, 2. Of the eleven leg cases, three were reamputations. In two of these the primary operation was done before the patient was brought to the hospital, and one followed an attempt to save a portion of the foot by Pirogoff's method. Of the double leg amputations, one was synchronous, the other non-synchronous, and in the latter case the patient underwent a reamputation of one leg twenty days after the primary operation.

The history of the three reamputations is of interest. In one case it was made necessary by necrosis of the tibia and a painful stump; in another by necrosis of the flaps, probably due to the fact that the seat of the primary operation was in too close proximity to the injury. The third case resulted from an unsuccessful attempt to save a portion of the foot. Of the thirteen patients, one (a thigh case) died an hour after the operation from loss of blood prior to the operation, and shock. Another, a leg amputation, died from a fracture of the skull after the amputation wound had healed perfectly. Eliminating the case of immediate death from shock, and we have seventeen major amputations done upon twelve individuals without a fatality as the result of the operation.

Open wound treatment has undergone few, and in the main, unimportant changes since my report upon that subject three years ago. A more complete knowledge of what can be achieved by antisepsis, a knowledge which is the outgrowth of a daily experience with modified Listerism in many cases, has fully justified the opinion then held, that the day of painful, suppurating, malodorous wounds is passed. Within the jurisdiction of the surgeon, local or constitutional septic infection is obsolete. In operative wounds, union by first intention is the rule. Compound fractures, even when complicated by extensive laceration of adjacent tissues, go on to rapid recovery. Joint wounds heal kindly, and oftentimes without permanent impairment of function, and in many of the formidable injuries resulting from railway crushes, where the patient survives the primary shock, we find an immunity from suffering and from loss of limbs that would formerly have seemed miraculous. Corrosive sublimate solution is the standard irrigation fluid, and dry sublimated gauze the chief factor in wound covering. Iodoform, through its inhibitory action upon germ development, has proven a most efficient adjunct in wound dressing, and is employed more extensively than in former years. The use of Mackintosh as an outer protective has been almost wholly abandoned. While it is certain that its employment adds somewhat to the patient's safety where a permanent dressing is desirable, yet its advantages are measurably offset by the fact that beneath such an envelope the dressings soon become saturated with moisture, causing objectionable maceration of tissues and delay in repair.

An extensive use of catgut for ligatures has in every instance given perfect satisfaction. The market is now supplied with several excellent varieties of this material, so that there exists no further apology for the employment of the silk ligature with dependent ends.

Silver wire maintains its reputation as a suture material where considerable tensile strength is required. It is, however, largely supplanted by horse-hair, when lighter and more delicate work is involved. It has proven non-irritating in the extreme, and easily removed when its usefulness has expired. But a more important consideration in its favor is the almost imperceptible trace left behind as its heirloom to the patient.

A most efficient and convenient device is the cotton and collodion dressing for small wounds, especially when conspicuously located, or when so situated that a bandage is adjusted with difficulty. Its method of application is very simple. The wound is treated as usual in the earlier steps. The surface having been dusted lightly with iodoform, a bit of absorbent cotton, sufficient to cover the wound and adjacent tissues, is neatly applied. The attenuated edges of the cotton are then cemented to the integument by a free application of collodion. Later the entire surface of the dressing may be painted freely with the same agent. The result is a neat, impervious, antiseptic dressing.

The very large number of severe sprains, subluxations, extensive contusions, and subcutaneous lesions, in general due to violence, which are admitted to the hospital yearly, renders the procedure in such cases one of unusual importance. Inflammatory action, so apt to follow such lesions, is in results most disastrous, and permanent impairment or deformity are its frequent accompaniments. A somewhat extended trial of various remedies in this class of cases has led to the belief that the application of a hot lotion, composed of a strong solution of acetate of lead and a varying quantity of laudanum, is by far the most effective method of procedure in such emergencies. The strongly astringent action of the lead upon the engorged tissues is a stimulant to the absorbents. Under its influence extensive hematoma are rapidly disposed of, tension is relieved, and disastrous secondary inflammation prevented.

The treatment ot hemorrhoids is a subject worthy of more attention than the brief mention which the scope of this paper admits.

Cases of long standing, presenting masses of fibrous tissue and involving extensive prolapse of mucous membrane with annoying erosions, ulcerations and hemorrhages are treated invariably by the continuous ligature, a method ingeniously devised by Guérin, and to which attention has been often called by Dr. H. W. Nelson, of this city. By this plan the entire margin of the anus, or such portion of it as is studded with pile tumors, is engaged in the ligature. No intermediate tissue remains to form a source of immediate or subsequent annoyance, and when repair is completed, recurrence of the former condition seems well-nigh impossible. In one instance a patient who declined to follow his instructions died from septic infection, incident to the operation. Aside from this, in a very considerable number of cases, the result has invariably proven a radical cure.

Hydrocele has been treated variously. The use of pure carbolic acid as an injection has proven satisfactory in a fair proportion of cases, but it is by no means infallible. After its employment, recovery is the rule ; yet occasionally there have been recurrences. The same remark is equally true of the iodine treatment. When injections have proven fruitless, a small incision and thorough drainage by rubber tubing, under a protective covering, has in several cases accomplished the desired end. In a recent case, after repeated and unsuccessful resort to injections and drainage, a fortunate termination was finally reached through free incision and excision of about one-half of the tunica vaginalis.

Among the latest achievements of antiseptic surgery is a successful, almost painless and rational plan for the treatment of extensive burns. Hitherto this class of cases have been contemplated by surgeons with little else than a feeling of self-reproach; and words cannot portray the horrors attendant upon the old *régime* of lotions, oils and salves. Attention was first called to the dry antiseptic method of treating burns by Prof. Mosetig, early in 1887, although a modification of the same plan had been in vogue in this institution for some months before Prof. Mosetig's announcement. The affected area is thoroughly cleansed with one of the non-irritating antiseptic fluids, preferably a solution of boracic acid. It is then dusted lightly with iodoform, or better with a powder composed of equal parts of iodoform and subnitrate of bismuth ; over this is placed several layers of iodoform gauze. The dressing is completed by a thick layer of absorbent cotton, held in place by an ordinary roller-bandage The local anesthetic effect of the iodoform rapidly reduces pain to a minimum and nervous shock is correspondingly lessened. Integumentary sloughs are preserved and rendered innocuous. Reparative processes, unimpeded by septic infection, are greatly hastened and the resulting cicatrix is smoother, more elastic, and less offensive to the eye than in cases differently treated.

The matter of sponge-grafting naturally finds a place in this connection, as by a resort to it the healing process in large denuded surfaces succeeding burns, as also in slow-healing, indolent ulcers, from whatever cause, is greatly expedited. Thinly shaven flakes of fine sponge, rendered perfectly aseptic by impregnation with iodoform, and planted upon a clean granulating surface, rapidly become firmly attached and are interwoven with organic material. Each graft forms a nucleus from whence are projected filaments of cicatricial tissue to promote and hasten general repair. As compared with skin-grafting, aside from the fact that it is more easy of accomplishment, the chief advantage in the use of the sponge is that the newly-formed tissue resulting from the latter seems to possess a far higher power of resistance, and correspondingly greater permanence than from the former. What ultimately becomes of the original material of the graft is an interesting query, and one for which only an unsatisfactory reply can be suggested at this time. Frequently, when repair under this method is quite perfect, and the part in question is nicely closed in by a firm covering, the surface is found studded with small elevated tufts, whose framework is sponge fibre. If the top of one of these be trimmed off, a freely-bleeding base remains. A few days later the remaining fibre has entirely disappeared, perhaps by absorption or possibly by being incorporated with the cicatrix.

A few months since I called the attention of this society to the fact that the margins of cavities or excavations resulting from circumscribed inflammatory processes, such as carbuncles, glandular abscesses and buboes, can be approximated by deep sutures and made to unite firmly as against the old idea that we must wait patiently until the tedious process of healing by granulation has done its work. Success in this direction can be hoped for only after the elimination of all necrosed tissue and the attainment of an aseptic condition, and in case an infiltrated gland lies within the field of operation extirpation will greatly enhance the probability of a fortunate result.

The following cases have been selected as illustrating the methods that I have described.

*Case I.*—Wm. H——, a switchman, aged 21, June 7, 1888, at 9 P. M., walked off the front end of a moving car, falling under the wheels. Both wheels of one truck passed obliquely across both thighs, from just above left knee to a point near Poupart's ligament of right thigh. He was brought to Sacramento from Lathrop, where the accident occurred, arriving at 1 o'clock A. M. in a state of profound shock. When placed upon the operating table it was found that he had sustained the following injuries: 1. A simple comminuted fracture of left thigh, the comminution extending over about four inches of the femur; adjacent soft parts greatly contused and skin distended. 2. An extensive crush and laceration of right thigh; perineum and one-half of scrotum occupied by hematoma. 3 A compound comminuted fracture of right tibia and fibula, with great displacement. The patient was seen with me by Dr. M. Gardner, and a few hours later by Dr. W. R. Cluness, all agreeing in an unfavorable prognosis. Special attention was paid to stimulating and nourishing patient, who was left upon a mattress in the operating room until 5 o'clock of the 8th. Open wounds had previously been dressed. At this time reaction had set in to a slight extent and the patient was transferred to a ward cot. Efforts at antisepsis were carefully persisted in. The fractures were supported at first only by sandbags. In a few days, however, the fractures were dressed in the usual manner. For the first two and a half days the patient vomited persistently. Since that time the case has progressed favorably. The right thigh is drained by two rubber tubes, two and four inches long. The scrotal clot remains, but is giving no discomfort. To-day, eighteen days from the injury, the young man bids fair to recover, with two useful, if not perfect, legs.

*Case II.*—F. R. D——, Jr., age 14 years, when three years of age sustained a deep and extensive burn, involving the left shoulder and arm nearly to elbow; left side of chest wall and in left axilla the injury was very deep. The process of repair was very slow. At the end of about one year the patient was well, with a broad cicatrical web confining the arm securely to the side and preventing elevation of the elbow higher than to a horizontal. It can be readily understood that the functions of the arm were thereby greatly impaired, and the young man correspondingly crippled. May 22d, 1887, under ether, I cut across the band of cicatrical tissue, and finding little if any relief from this step, proceeded, by careful dissection, to loosen up the deep mass of fibrous bands that filled completely the axillary space. The arm and shoulder were thereby freed from attachments, and all movements were possible. The wound was closed to the greatest possible extent by sutures, but a broad exposed surface remained in the axillary space. The sutured portion of the wound united by first intention, but the deep axillary ulcer repaired with provoking slowness. Month after month this was dressed *secundum artem*, and nearly every device known to the healing art was exhausted in the effort to induce repair. Skin-grafting failed utterly. Stimulating applications gave no encouragement, and the matter of a plastic operation was seriously discussed. In February of the present year, sponge grafts were planted in the ulcer, and from that time repair was relatively rapid. Newly formed tissue was of a permanent character. Where formerly there had been a tendency toward breaking down of the cicatrix, this was no longer noticed. The case was formally discharged June 2d, 1888, though recovery had been practically perfect for a month prior to that date. The result, so far as the functions of the arm are concerned, is perfect. When both arms are elevated vertically the hands and finger-tips meet; and in this position there is no undue tension upon the cicatrix

*Case III.*—F. D——, laborer, aged 24. On May 2d, 1888, left leg was caught beneath a car-wheel. Entered hospital three days later, when he was found to have sustained a deep lacerated wound on inner aspect of leg, at the middle third; also a severe contusion of the left ankle, over which the car-wheel passed. Over both maleoli were extensive lacerations, and the foot and ankle were greatly distended by extravasated blood. The earlier treatment was by the ordinary antiseptic irrigation and dressing, which were continued until the end of the second week, when several masses of necrosed integument and muscular tissue were removed. On May 26th the resulting denuded surfaces were thickly studded by thin flakes of carefully prepared sponge. A cavity in the wound of the calf of leg was filled with three pieces of sponge the size of almond meats. June 14, 1888—Since last report the case has progressed rapidly. Nearly all the grafts remain, and many are thoroughly imbedded in the resulting cicatrix. The cavity is obliterated.

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# NEW INSTRUMENTS IN RHINOLOGY AND OPHTHALMOLOGY.

By A. P. WHITTELL, M. D., San Francisco, Cal.

The use of sprays as a means of applying medication to the nasopharyngeal and laryngeal mucous membrane has become so universally adopted, to the exclusion of the unclean brush and swab, that any improvement in the means of producing the spray will meet with ready approval by the many using them. One of the most serious faults with the spray tubes commonly in use is the unevenness of the spray atoms, but worse still is the dropping of the liquid from the end of the tube, which periodically accumulates to a large drop just beneath the apex of the spray cone, and which, when using a post-nasal or laryngeal tube, allows the drop to fall exactly through the open epiglottis into the larynx, to the great distress of the patient and annoyance of the operator. I have devised a simple means of overcoming this, as well as to improve the character of the spray, and henceforth spray tubes made according to the method here described will never have this objectionable feature.

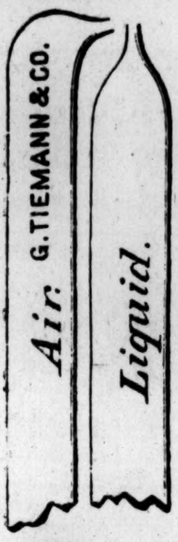


Fig 1.

A spray tube consists essentially of a tube, continuous with a reservoir containing the indicated fluid, drawn to a fine open point, and a tube for conveying air under pressure also drawn to an open point, the latter placed exactly at right angles to and within about a fifteenth of an inch from the former in the relative position shown in Fig. 1. The pointed open ends of the tubes are usually both cut off square, and to this is due the accumulation of drops at that end. By *grooving the liquid-carrying tube* at the point, *in the precise direction of the air blast* as it leaves the air tube, the formation of drops will be entirely prevented and the spray will be greatly improved in evenness and quality. The grooving of the end of the tube is shown in Fig. 2, and beside it the ordinary square cut end. The elevated sides of the grooved point form a channel whose walls confine the liquid as it emerges from the tube and exposes it all to the full force of the air blast.

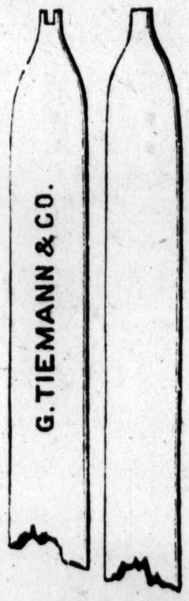


Fig 2.

Fig. 3 illustrates a complete spray tube of the form I have adopted, which, in addition to the advantage of the grooved point above described, has the reservoir a little below the level of the point of discharge, thus obviating the flow of the liquid through the tube by the mere force of gravity. They are preferably made of glass, on account of transparency, ease of cleaning, and when it is required for spraying a substance (like vaseline) which requires heat to liquefy it, it may be held in hot water or heated over a spirit lamp. Any physician, with a little practice, can make his

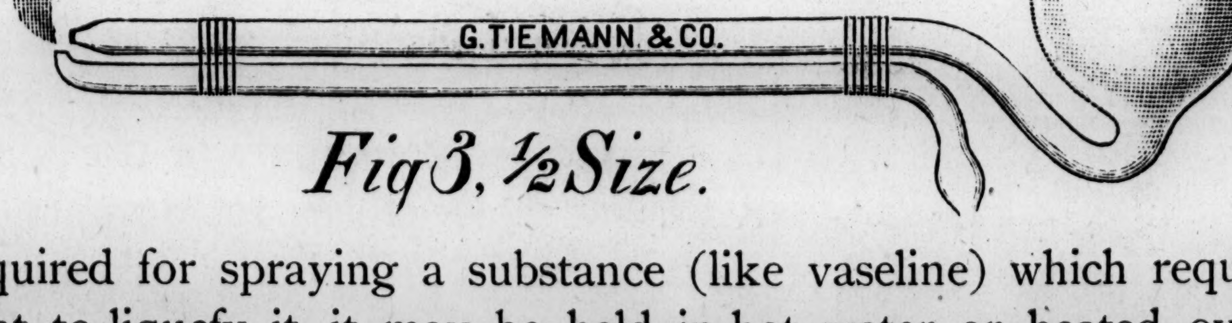
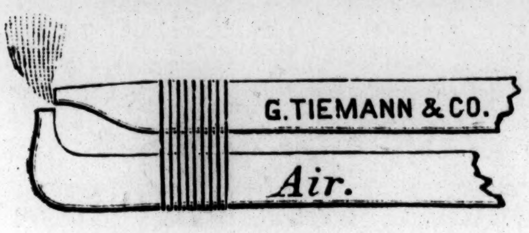
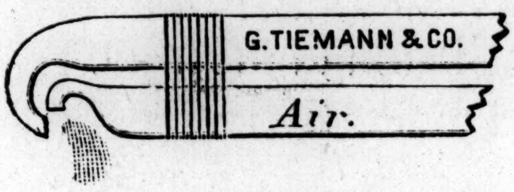


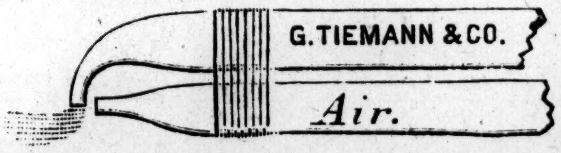
Fig 3, ½ Size.

own spray tubes, the only requisites being some glass tubing one-eighth inch internal calibre, a bunsen gas flame or spirit lamp and some fine copper or silver wire for binding the two tubes together. The grooving at the point is made with a jeweler's fine ratchet file, well wet with water. When adjusting the points, an operation which requires some patience and often many changes, the tubes may be temporarily held together by small rubber bands cut from rubber tubing, but when finished are tightly bound together by a dozen turns of the wire at the two places shown in the illustration.

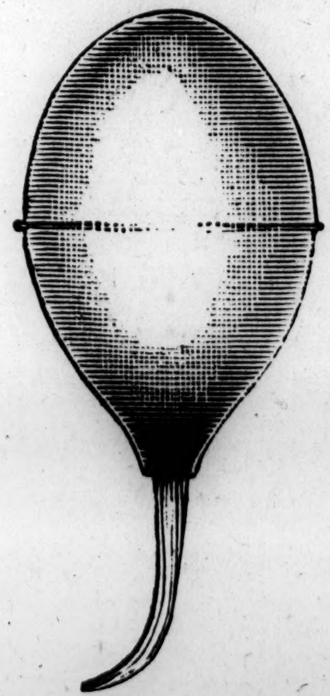
For the guidance of those wishing to make their own spray tubes, the relation of the tube points in the three principal directions required is here shown; *i. e.*, upward, downward, and forward. Any angle may be obtained by modifying the bend of the points. The air point, or nozzle, should always be one-fourth to one-third larger internal diameter (at the extreme tip) than the nozzle for the liquid. For a fine spray the opening at the point of the liquid tube should be $\frac{2}{100}$ inch diameter; for a very course spray $\frac{4}{100}$ inch, and the air pipe proportionate. These measurements are for an air prsesure of from five pounds to twenty-five pounds to the square inch, or for the ordinary hand or foot bulbs.



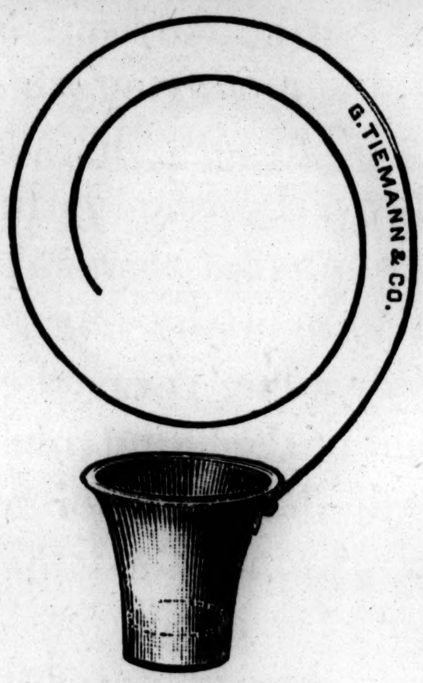




The accompanying illustration of a stiff rubber bulb 1½ ounce capacity, with a curved glass tube 2½ inches long, having a nozzle of $\frac{1}{25}$ inch diameter, will be found extremely useful in the treatment of affections of the conjunctiva for the washing off after applying copper-sulphate, silver-nitrate, etc. It has been the general custom to use a camel's-hair brush, repeatedly dipped in water and passed over the everted lids to wash off the excess of the remedy used or check its effect. This may be much more easily and perfectly accomplished by the use of the above described instrument filled with tepid water, which escaping slowly through the small outlet, with much or little force according to the pressure on the bulb, produces a constant stream, which may be gently played over all parts of



the everted lids, washing them more thoroughly and gently than can be done with a brush and with much less discomfort to the patient. It should be held in the position here shown. The same bulb is also extremely useful as an ear syringe for the daily washings required in the treatment of purulent otitis. With the left hand raising and drawing the pinna backward, the other holding the bulb (in the position shown in the illustration) the point of the tube is inserted in the meatus against the upper wall. By a sharp and sustained pressure of the bulb the ear may be ordinarily thoroughly cleaned with from two to four drachms of water. By having two bulbs and allowing one to fill while the other is being used a saving of time is effected.



The instrument here shown is an ordinary watchmaker's three-inch eye-glass or lens, with a spring attachment for holding it in place over the operator's eye, the spring being merely passed around the head. It is admirably adapted to finding foreign bodies imbedded in the cornea and fragments of lens, iris or capsule in the anterior chamber, and leaves the operator's two hands free from holding a lens and instrument when removing them.*

235 Post street.

## ABSTRACT OF A PAPER ON MYXOMA OF THE CHORION OR VESICULAR MOLE.

By THOS. MORE MADDEN, M. D., Obstetric Physician to the Mater Misericordia Hospital, Dublin.

*Read before the Section of Obstetrics of the Royal Academy of Medicine in Ireland.*

Dr. More Madden read a paper on myxoma of the chorionic villi, or vesicular mole, as a practical contribution to the study of the still obscure pathology of embryonic death in the uterus. Having first described some cases of myxoma of the placental chorionic villi recently met with in his hospital practice, the writer proceeded to point out the general importance of placental disease as a most frequent cause of intrauterine death and abortion. It would be superfluous in this abstract to dwell on the importance of this still neglected field of investigation, or to do more than observe that being, as it is, the sole medium of vital communication between the fetus *in utero* and the mother, any deviation from the normal condition of the placenta by which its development may be arrested and its physiological action impaired or perverted must be of serious consequence either to mother or child, or to both. Amongst the diseases of this organ affecting the mother as well as the child are inflammations of the placenta, especially chronic or subacute placentitis, leading to morbid adhesions between the afterbirth and uterus, and occasionally giving rise to the two most serious complications of parturition—viz.: *post-partum* hemorrhage and inversion of the uterus. Another placental disease of no less importance to the mother than to the child is congestion, sometimes resulting in hemorrhage or placental apoplexy; whilst amongst the placental diseases which chiefly affect the fetus by impairing or destroying the structural integrity of this organ are edema, atrophy, and hypertrophy of the afterbirth, and the various forms of degeneration—fatty and calcareous; and, above all, that which was met with in this case—viz.: myxoma or cystic degeneration of the placenta, or chorionic villi. In his own practice he had now met with six cases of this disease, the infrequency of which appears from the following table:

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* These instruments can be obtained from Geo. Tiemann & Co.

| Authority. | Cases admitted into the Rotunda Hospital. | Case of Hydatidinous Disease reported. |
|---|---|---|
| Dr. Collins, - - - - | 16,654 | — |
| Drs. Hardy and M'Clintock, - | 6,634 | 1 |
| Drs. Sinclair and Johnston, - | 13,748 | 4 |

Thus it appears that in 31,036 cases admitted into the Lying-in Hospital there were only five instances of hydatidiform mole recorded, being in the proportion of 1 in 6,207 cases.

Vesicular disease of the placenta consists in myxomatous degeneration and abnormal development of the placental chorionic villi, either following or producing the death of the fetus. In the "Dublin Obstetrical Transactions" Dr. More Madden had already related some cases of this kind. In most of these the hydatidiform mass was expelled from the uterus in the fifth month of pregnancy. The symptoms of this disease can at first hardly be distinguished from those of ordinary pregnancy. If, however, in addition to the signs that usually denote the death of the fetus, the patient experiences occasional gushes of water together with slight hemorrhages from the uterus, lasting for a short time and recurring at irregular intervals, we may suspect the existence of vesicular disease in the placenta of a blighted fetus. The expulsion of these growths from the uterus is generally attended with severe hemorrhage. With regard to their origin, it would be useless again to review the countless theories that have been put forward at different times. For his own part Dr. More Madden still adhered to the views he published several years ago, that in the vast majority of cases those growths originate in cystic degeneration of the chorion villi of a blighted ovum; but at the same time he also believed, although his opinion had been controverted by others, that vesicular growths, apparently similar to those resulting from chorionic disease, may in some exceptional cases also possibly be found *in utero* under circumstances that preclude their origin in embryonic disease. And in such cases Dr. More Madden holds that they probably originatd in the ovary of an unimpregnated female from abnormal nutrition and perverted or monstrous development of a graafian vesicle, the ovum, when expelled into the uterus, there becoming adherent, and abnormally proliferating, until by its bulk expulsive action is occasioned.

In the way of treatment Dr. More Madden knows of nothing that can be done to arrest the progress of the disease, but an attempt should always be made to prevent its recurrence by improving the general health of the patient by alteratives and ferruginous tonics, especially any of the saline chalybeate waters, such as Kissengen Spa, Tunbridge Wells, or Lisdoonvarna. It has been recommended that we should bring about the expulsion of these so-called vesicular moles as soon as they are discovered. This, however, is clearly wrong practice; for it is quite possible that only a portion of the placenta may be affected; or, as the writer has seen, the birth of a healthy living child may be followed by the myxomatous placenta of a blighted twin conception. Hence, even if this disease could be diagnosed at any time during the nine months of pregnancy, we should still let nature take her course, rather than by unnecessary interference run the risk of destroying a fetus which experience has shown may possibly coëxist with the vesicular growth *in utero*.

## DEPARTMENTS.

### OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal.

**A Criticism on the Midwifery Forceps in General Use.**—1. Length: Simpson's forceps meet the requirements of the vast majority of cases, even when the head is at the brim; still, they would be improved by increasing their length to that of Barnes' forceps. 2. Handles: The value of a pair of forceps depends quite as much on the form of the handles as on that of the blades. To be readily serviceable they should properly balance the blades in the hand. This principle at once discards the very short, as seen in Matthews-Duncan's forceps, and the unduly long and heavy, as in the French type. The form of the handles determines not so much the amount of force that can be exerted as the conservation of the force. It is important to avoid fatigue, and thus to preserve delicacy of diagnostic touch and an exactly balanced control of movement. To this end Simpson's handles are best adapted. 3. Lock: The consensus of opinion is strongly in favor of the English or Smellie lock in preference to the button and mortice or screw. 4. The parallel shanks have now been adopted in all the best forceps. A slight addition to the length of the Simpson's forceps is required in order to bring the lock more external in high operations. 5. The pelvic curve has also been determined and does not differ in the two types of forceps under discussion—Barnes' and Simpson's. 6. Form of the blades: Thin springy blades are objectionable. The form of the blades depends largely on the fenestræ. One extreme is found in Taylor's narrow forceps; the other in several American forceps, as in those of Hodge, Smith and Wallace. An intermediate form is preferable. In both Simpson's and Barnes' the fenestræ are too narrow. An increase was first suggested to me by a pair of forceps by the late Dr. Macdonald, and since I have adopted this modification I have been fully conscious of the improved grasp and greater retentive power. 7. Axis traction rods: The ordinary forceps will hardly be displaced by one or other modification of Tarnier's instrument. Still it must be admitted that a defect in the ordinary curved instrument has been pointed out. This defect, however, may be overcome by a much simpler method. Increasing experience with the simple tractor in the form of a hook, assures me that all the advantages claimed for the complicated apparatus can be obtained by this simple contrivance readily applicable to any forceps. It enables the operator to change the direction of the force in any way required and gives much better facility in employing both hands at once, while at the same time it diminishes the risk of fatigue.—DR. STEPHENSON in *British Medical Journal*, March 31, 1888.

**Sterilized Milk.**—By means of numerous experiments DR. CAILLE has reached the following conclusions: 1. The preparation and administration of sterilized milk can be managed in any well regulated household. 2. The boiling of milk for twenty or thirty minutes under slight pressure, in small bottles hermetically closed, is all that is necessary to practically carry out the principle involved in sterilization; *i. e.*, to destroy the germs of fermentation. 3. The essential material are small bottles with Soxhlet's stoppers, and a tray. 4. Milk boiled in small bottles for twenty minutes and immediately closed by rubber, cork or cotton stoppers will keep sweet, if put on ice, for several days. 5. The boiling of milk in the ordinary way is faulty. All milk for infants' and children's use should be boiled in small bottles in a water bath for twenty minutes, when it will keep much longer than if boiled in the ordinary way and the usual length of time. 6. The transportation of milk during the summer months should take place in refrigerator cars. This should be secured by legal enactment. 7. An apparatus for properly boiling and preserving milk for infants' use should be at once introduced into every well regulated household. The essential utensils are: small bottles (5 or 6 oz.) with combination stoppers (Soxhlet's), and a tray of tin or galvanized iron—all procurable for a very moderate sum. A good brush for cleaning the bottles should accompany each set; also a tin dipper, with perforated inner bottom, for warming the milk before giving it. Ten spare bottles with a few ordinary nipples would make the outfit complete. To facilitate handling and transportation such an outfit could be packed in a wooden box one foot square and high, and provided with a common handle. All the other utensils, as advised by Soxhlet, are superfluous; the more so as complicated apparatus is difficult to introduce for family use and soon discarded. Feeding tubes are difficult to keep clean, and should not be used. The ordinary nipples, for sale everywhere, will fit the bottles and can be turned inside out and thoroughly cleansed. It would be a good plan to stamp into the cover of the boiling pot: *Boil for 20 minutes*, this being important in view of the fact that printed labels are liable to be lost or mislaid.—*Dietetic Gazette*, April, 1888.

**Bacteria and the Uterus after Physiological Parturition.**—As the result of their recent investigations and experiments with the female rabbit, mouse and rat, STRAUS and SANCHEZ TOLEDO announce that after normal parturition no microörganisms whatever are to be found either in the uterine walls or in their secretions. The numerous microbes present in the vagina either do not enter the uterus or, if they do, are rapidly destroyed. Moreover, microbes which to these animals are eminently pathogenic may be introduced into the post-parturient uterus in immense numbers without producing infection. The specific microbe of chicken cholera presents the only exception. DEDERLAIN has also recently discovered that the lochia of the normal lying-in woman carefully withdrawn from the cavity of the uterus is also free from microörganisms and may be injected beneath the skin of the lower animals without appreciable effects, while the lochia of febrile patients similarly injected provokes accidents.—*Progrès Médical*, April 28, 1888.

**Local Use of Permanganate of Potash in Diphtheria.**—A solution of permanganate of potash, used by the atomizer, has given DR. MASON better results than any other drug so used. He uses a solution of two and a half to three grains to the ounce of distilled water. The first notable effect is the almost immediate arrest of the fetor, which does not return if the disinfection is properly kept up. The diphtheritic exudate is quickly rendered innocuous and self infection arrested. This spray may be used freely and with perfect safety, which is not to be said of some other drugs used for the same purpose. It should be continued until the last trace of diphtheritic exudate has disappeared. The absolute control of fetor is the best guide as to the frequency of its use.—*Brooklyn Medical Journal*, May, 1888.

**Quinine as an Oxytocic.**—In a communication to the District Gynecological Society DR. CORDES, of Geneva, deprecated the use of ergot in abortion before the uterus is empty. Formerly he frequently observed the failure of ergot to expel the uterine contents. This failure is explained by the fact that ergot excites contraction of the cervix as well as of the body of the uterus, and thus imprisons the placenta instead of expelling it. As Pajot graphically expresses it: "The wolf is locked in the sheepfold." Curetting should be reserved for cases in which the placental remains are very small, slightly adherent and offensive. When the piece of placenta is large, adherent and not offensive, quinine will detach it and force it out of the cervix as a whole, and not piecemeal as does the curette. The smaller and less adherent the pieces of placenta or membrane the more inclined they are to putrefy, and unless we are quite sure of being able to extract them whole at one time, we would better try to cause the fragments to be expelled by the uterine contraction excited by quinine, or in some cases by ustilago maidis. In case the patient is not flooding to death, and the discharge is not very offensive, I would much prefer to prescribe an utero-motor than to use the curette. Quinine answers all the indications: it reduces the fever, promotes contraction of the body, *not of the cervix*, leaving the door open for the expulsion of the uterine contents. I am so persuaded of this that in my private practice I do not remember ever to have curetted in a case of abortion; and the quinine acts so wonderfully in these cases that however anxious to try Doléris' écouvillon, I have not yet had occasion to employ it.—*Annals of Gynecology*, May, 1888.

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## SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Co's Hospital, Sacramento, Cal.

**A Case of Nephrorraphy for Movable Kidney—Complete Relief of Symptoms.**—S. E. C——, aged 36, married, entered the Massachusetts General Hospital September 19, 1887. Always a strong, healthy woman. Eighteen months ago developed the usual symptoms of movable kidney. Changes of position in bed and elsewhere caused intense pain. She was entirely incapacitated for work and was willing to submit to any measure offering relief. Careful examination with patient on left side revealed a movable body, resembling the kidney in size and shape, in the right lumbar region. The tumor not painful to touch, and could be displaced very far to the left of the umbilicus and down into pelvis. Urine normal. Operation September 22, 1887, under ether, patient on left side. An incision about six inches long along the margin of the quadratus lumborum muscle. The edge of this muscle was drawn to one side and the perinephritic fat exposed. This was divided and the posterior surface of the kidney was exposed. The organ moved up and down freely with respiration, undergoing a displacement of about two inches, making it very difficult to apply the sutures. Sutures of silk were passed through the capsule of the kidney by means of a round needle, without entering the kidney substance. Four of these stitches were taken and the edges of the wound drawn together, with surface of kidney approximated to their inner surface. Wound then closed tightly with superficial sutures. Antiseptic dressing. Rapid convalescence with no rise of temperature. The stitches passed through the capsule were removed October 7th. During convalesence there was some pain in region of the kidney and in the wound. From the first there was relief of her symptoms, which has continued up to time of report, May 30, 1888. She was fitted with a special pad and allowed to get up October 30th. Before the operation she wrote: "I am miserable, and good for nothing in the world. * * * I am anxious to risk any peril for the hope of getting well." February 29, 1888, she wrote: "I am splendidly well." In this case mechanical treatment was tried patiently and thoroughly without avail. The operation has proven far more successful than I dared hope. The kidney was not fixed in its normal position, but about two inches lower down. I believe that it is extremely difficult, if not impossible, to bring the kidney, especially the right, into its normal position, but I see no disadvantage in bringing it conveniently low down. Opinions expressed by authorities (which the writer quotes extensively) present most fairly the present aspect of the best treatment in these cases as follows: That in many cases, if not in the majority, no interference is demanded or justified beyond the application of a pad. In some cases even this is not necessary, as there are no symptoms. If the symptoms are unendurable, then nephrorraphy can be done with little danger to life, and with a very good chance of permanent recovery; or, at least, enough lasting benefit to justify the operation. Finally, if fixation has not followed, as a last resort the offending viscus may be removed.—MAURICE H. RICHARDSON, in *Boston Medical and Surgical Journal*, June 14, 1888.

**Considerations Bearing Upon the Etiology of Non-Union of Fractured Bones.**—To what extent are defects of immobilization responsible for delayed or non-union after fracture of long bones? or is the occurrence of non-union after fracture presumably an evidence of imperfect or improper treatment? The opinions of CELSUS, of MALGAIGNE, and of P. BRUNS are in support of an affirmative reply to the latter query. The natural result of this doctrine is to expose every surgeon who chances to meet with a case of non-union or delayed union to the charge of malpractice. While non-union often occurs as a result of defective immobilization, yet, on the other hand, it is true that in an immense number of cases gross defects of immobilization are common without interfering with rapid repair. Such are fractured ribs, clavicle, humerus and femur. To these may be added a large number of cases occurring in military surgery. The frequency with which false joints have developed in fractures occurring on shipboard has been noted by various authorities as illustrative of the effects of lack of immobilization, particularly as in many instances consolidation took place after reaching port. No consideration of these cases can be complete, however, without taking into account the defective hygienic surrounding and constitutional conditions of such patients both before and after injury. The frequent failure of passive and active movements to prevent ankylosis at the elbow after excision of the joint surfaces, the invariable repair of fractures of the lower extremity of the radius in the many instances in which that fracture receives no treatment at all, the healing of fractures of ribs and of the clavicle, these are all doubtless due to the extent and activity of the processes in the cancellated tissue involved in the injuries named. The dense, compact tissue of the shaft of the humerus or the femur presents conditions less favorable for nutritive activity than the parts just named. It is to be expected, therefore, that whatever causes, local or general, may be present in an individual case tending to lessen reparative energy would be more likely to determine absolute failure of repair in these bones than others. In the 19,455 fractures of the arm, fore-arm, thigh and leg, compiled by Bruns, the author finds that if the relative frequency of non-union after fracture of the bones of the fore-arm be taken as the unit of comparison, non-union in fractures of bones of the legs is three times as frequent, and of the femur and humerus each six times as frequent; the proportion of cases of non-union to the entire number of cases of fracture of the particular bone being nearly the same in each of these two last named bones. Granted, therefore, that fractures of the shaft of the femur and of the humerus are more frequently followed by non-union than those of other bones, and that the construction of the tissue of the shaft of these bones is such as to render them more powerfully affected by any causes that tend to hinder repair, the question recurs, ought defects of immobilization to be considered as the sole cause of arrest of repair in any considerable proportion of cases? From the sphere of this question I would exclude cases of exaggerated neglect and intentional free movements of the fragments. The question of defective immobilization in most of these cases has simply to do with the thoroughness of attempts of reposition of the displaced fragments and their retention by sufficiently efficient apparatus, of extension and counter-extension, the use of this or that retentive apparatus, the inclusion or non-inclusion of neighboring joints in the immobilizing appliances, and such like matters. Certainly in the great majority of cases the results of such imperfect treatment are limited to the production of excessive callus and to deformity and shortening of the bones. That in some cases, where immobilization has been incomplete, non-union has resulted, does not necessarily imply that this result was due to the defective immobilization. Very pertinent to this point is the testimony of GIRDNER, that in the treatment of fractures in insane persons, whose restlessness made it difficult properly to adjust and immobilize the fragments, he was always able to obtain bony union, except in cases of general paresis, in which class, though as a rule more manageable than patients with most other forms of insanity, osseous union was not the rule. May it not be that in a much larger proportion of cases than has hitherto been acknowledged, a more severe inquiry would elicit other causes, either local or constitutional, to which the non-union would be properly referable rather than to the defective immobilization?—L. S. PILCHER, M. D. in *New York Medical Journal.*

## OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

**Researches in Ocular Troubles in Tabes Dorsalis.**—The researches which M. EMILE BERGER began some years ago in Austria, and had recently completed in Paris, on the relation of ocular troubles in tabes dorsalis, brought out some new points. These investigations were made on 109 patients, of whom 47 per cent. were syphilitic; 26 of the cases were in the preataxic stage, 50 in the ataxic, and 33 in the paralytic. Among the symptoms not thus far described, is the diminution of the intraocular tension. This struck the author especially. In only two cases did he find increased tension, and in these it had developed before the commencement of the tabetic symptoms. A considerable degree of lowering of tone was found in two eyes in the preataxic stage, eleven in the ataxic, and eleven in the paralytic. The phenomena were present 12 times on both sides. It is thus seen that diminished tension was most frequently found in the paralytic stage and most rarely in the first or preataxic stage. Another symptom which has hitherto been little observed is a paralysis of some of the muscular fibres of the lids that are supplied by the sympathetic. As a result the palpebral opening is diminished. This symptom was found in 42 cases (those due to paralysis of the third nerve were not counted). In 17 cases one side only was affected, while in the remaining 25, both sides. Myosis coëxisted with diminution of the palpebral opening 6 times in patients affected on one side and 11 times in those with bilateral trouble. The frequency with which the partial closure of the palpebral space is observed increases from the first stage to the stage of paralysis. Another new symptom is the deformity of the pupils, which, instead of remaining circular, often become eliptical. Berger found the form of the pupil to vary from normal in 32 cases in the preataxic stage, 20 in the ataxic and 5 in the paralytic. This condition was nearly always associated with myosis. This phenomenon strongly opposes the view that the myosis of tabetic patients is due to spasmodic contraction of the sphincter muscle of the iris. He believes it to be due to unequal paralysis of the iris vessels in different meridians. The coëxistence of myosis, lessened intraocular tension, and narrowing of the palpebral opening simulates the chain of symptoms produced by a section of the sympathetic. It proves that this nerve plays an important part in the appearance of certain symptoms in tabes dorsalis. It should be mentioned that pupils of M. Vulpian had previously found anatomo-pathological changes in the sympathetic in this disease. The fact that each of the symptoms may be present singly proves that the sympathetic is not the source but the course of transmission of the irritation from the spinal cord to the eye.—*France Médicale.*

**Purulent and Strumous Conjunctivitis.**—DOCTOR VALUDE described (*Révue des Maladies de l'Enfance*) a variety of conjunctivitis affecting children which resembles in its early stages purulent conjunctivitis. Like the lattter, it produces an abundant secretion, the lids are edematous, and corneal complications, which are the great source of danger, are quite frequent. Upon careful examination it will however be distinguished from purulent conjunctivitis. In this strumous ophthalmia the lids are especially swollen and appear hypertrophied, the conjunctival inflammation seeming secondary. The palpebral tissues are the seat of infiltration of hard and elastic edema. At the same time the nose, cheeks and lips are hypertrophied, and may be affected with papules or pustules. The diagnosis between purulent and strumous ophthalmia is important, the treatment of the two being quite different. Indeed, treatment of strumous conjunctivitis with nitrate of silver gives unfavorable results. The best results are obtained by yellow oxide of mercury ointment, one to ten, irrigation with boric solution in combination with antistrumous regimen, iodide, cod liver oil, etc.—*Bulletin Général de Therapeutique.*

**An Examination of the Eyes of Fifty Cases of Chorea of Children.**—With a view of determining the relation which anomalies of refraction and accommodation of the eye, visual acuity, sufficiency or non-sufficiency of the recti muscles, and the condition of the fundus, bear to this nervous disease; DR. SCHWEINITZ examined the eyes of fifty children afflicted with chorea. As a result of his study he believed that the following conclusions were justifiable. (1) The eyes of choreic children quite commonly present chromatic asymmetry in shade, just as the same condition has been found in other forms of nervous disorders. (2) Slight difference in the width of the pupils may be observed, but not more frequently, in fact, not as frequently, as they have been noted in perfectly healthy individuals. (3) Facial asymmetry is present in about one half of the cases, just as this is present in cases of high refractive error, and also in individuals perfectly free from nervous disorders. (4) Hypermetropia and hypermetropic astigmatism are vastly preponderating conditions of refraction in the eyes of choreic children, being found in 77 per cent. of the cases, exactly as hypermetropic refraction is the preponderating condition in childhood generally, being found in 76 per cent. of eyes of children in the elementary school year. (5) Imperfect equipoise of the eye muscles is found in the great majority of cases, but is very frequently present in the eyes of school children free from chorea or neuropathic tendencies. (6) Embolism, atrophy of the disc, and optic neuritis may occur during or after attacks of chorea, but appearances in the fundus oculi characteristic of the disease have not been found. (7) As Octavius Sturges remarks: "It seems certain that a fairly constant proportion of chorea is directly connected with what may be called injudicious schooling, * * * but such nice adjustment as shall prevent over-strain on the one hand and over-indulgence on the other, is practically unattainable." Certainly an endeavor to lessen the over-strain of the eye should be made. Hence the refraction errors and muscular defects in those children should be carefully and fully corrected by glasses, by prisms when necessary, or even by judicious surgical interference, and thus a probable exciting element removed, just as we would perform the same service for eyes similarly afflicted in children who are not choreic; just as we should improve the hygiene, remove the anemia, and treat the disabled circulatory apparatus in children who are choreic. Evidence, however, seems to be quite as lacking that hypermetropic refraction is the basal cause of chorea as it is that the chorea is the cause of hypermetropia.—*New York Med. Journal.*

## DERMATOLOGY AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

**The Paquelin Cautery in Acute Epididymitis.**—In the July number of the *Journal of Cutaneous and Genito-Urinary Diseases*, DR. GEORGE E.

**Brewer** says the use of the actual cautery in acute epididymitis was first suggested by Dr. W. S. Holstead. His method consists in lightly touching the skin over the affected organ with a white-hot cautery point. The operation requires only a few seconds, and if skillfully performed is but moderately painful. A dressing of iodoform ointment is then applied and the patient is instructed to wear a suspensory bandage. Instant relief from pain invariably follows the application of this treatment, and the patient, as a rule, is able to be up and walking about in comparative comfort. The author has treated 46 cases by this method, and in only two instances have the patients been obliged to remain in bed after the first application, and in one of these the real cause of the enforced rest was a coëxisting cystitis. It may be added in this connection that marked relief from pain in gonorrheal rheumatism may also be effected by a similar use of the cautery and iodoform ointment, and this combined with absolute rest has, in his experience, proved the most satisfactory method of managing this obstinate class of cases. Another method of applying strong counter-irritation in acute epididymitis is by means of a sixty grain solution of nitrate of silver applied to the surface of the scrotum. He has employed this in thirteen cases, often with marked success. It, however, has the disadvantage of frequently causing a slough of the epidermis, often leaving an extensive patch of superficial ulceration.

**The Treatment of Callosity, Warts and Corns.**—Roesen (*Münch. med. Wochenschr.*, Nov. 9, 1888) employs the following modified salicylic acid treatment with excellent success for the removal of these epidermal hypertrophies. The object to be removed is first moistened with an antiseptic solution, then covered with a layer of pure, crystallized salicylic acid. The latter is now covered with a layer of lint, moistened with a solution of boracic acid, and the whole covered with a piece of gutta-percha tissue, secured by a bandage. When the callosity to be removed is not too thick, five days will suffice before removing the bandage. It will then be found that the new growth has shrunken and is completely isolated from the surrounding tissues. If the new growth is of unusual thickness, as is often the case on the plantar surfaces of the feet, it is then necessary that the bandage be left undisturbed for ten days or the application may be renewed after five days, either of which methods can be practised with impunity.—*New Yorker medizin. Presse*, June 1888.

**"Gray Oil" in the Treatment of Syphilis.**—By the term "Gray Oil" Lang designates an oil of mercury containg 30 per cent. of metallic mercury, which has the following ingredients:

Mercury,
Lanolin aa. 3 parts,
Olive Oil 4 parts.

Every five to eight days two points in the back or nates are selected for the subcutaneous injection of 0.1 to 0.15 ccms. of the oil. The symptoms begin to disappear in 2 or 3 weeks. After this time the injections are made at longer intervals until about 2 ccm. of the oil are used. A cubic centimeter of this oil contains about 0.39 gm. of metallic mercury, which is equivalent to 0.52 of corrosive sublimate. When employing sublimate by injection in the treatment of syphilis, at least 52 injections must be made before the organism contains sufficient mercury to equal 1 ccm. of the oil. The advantages claimed for this method of treatment are briefly as follows: 1. That the mercury is regularly distributed. 2. That it is a convenient and harmless method, provided the rules of antisepsis are observed. 3. That suppuration at the site of puncture has never been observed.—*Deutsch. medicin. Wochenschr.*, June 14, 1888.

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## MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Therapeutics, University of California, San Francisco.

**Ointment of the Nitrate of Mercury in Boils and Felons.**—During the last six years DR. RORERT KENNER has used successfully this preparation as an abortifacient of boils and felons. He claims that through its agency he has been able to abort nearly all cases that came under his care before suppuration had commenced. The application of the ointment is not painful, and in about twelve hours is followed by a peculiar drawing sensation, after which there is a complete cessation of all uneasiness. In treating felons the entire finger should be covered with a coating of the ointment about one-eighth of an inch thick and then enveloped in a piece of thick sticking plaster. This dressing is allowed to remain for twenty-four hours, after which time further treatment is unnecessary.—*Therapeutic Gazette*, June, 1888.

**Potassium Permanganate in Anthrax and Furuncle.**—DR. C. M. FENN, of San Diego, recommends a solution of ten grains of potassium permanganate in an ounce of water as an application which will abort or speedily cure furuncle and carbuncle. In the treatment of furuncle the solution is applied by means of a cotton-tipped probe or hypodermic needle to the core of the boil; while in carbuncle the focus of the disease is reached through one or more of the cribriform avenues which are present even before suppuration has taken place. Dr. Fenn reports cases in support of his method of treatment.—[*Journal American Medical Association*, June, 16, 1888.] In connection with this disease DR. ROBERT MAIN writes to the *British Medical Journal*, May 19th, stating that after trying many methods for the relief of carbuncle he has adopted the following: "I inject into the carbuncle half a grain of hydrochlorate of cocaine, and wait about five minutes, until the skin is quite anesthetized, then I make a small incision into the centre of the carbuncle with a tenotomy knife, insert a small sharp piece of potassa fusa, and push it home. Afterwards a circular piece of belladonna plaster, cut larger than the carbuncle, is placed over it, so as to serve the double purpose of retaining the caustic and relieving pain. After eight hours this is removed and hot linseed poultices are applied for the same length of time. The result is that the patient always recovers about three days after the commencement of the treatment, which in this way is carried out almost painlessly.

**Iodoform and Tubercle.**—DR. ROVSING, of Copenhagen, reports some experiments regarding the influence of iodoform upon tubercle which tend to show that in this disease iodoform is devoid of germicidal power. On several occasions he has innoculated the two eyes of a rabbit with pure iodoform and tubercle respectively, and found that signs of tuberculosis appeared first in the organ in which iodoform had been placed, the irritation caused by the drug being sufficient to form a more favorable nidus for the tubercle.—*Lancet*—*New York Medical Journal*, June 30, 1888.

**Codeine for the Relief of Pain in Abdominal Diseases.**—DR. LAUDER BRUNTON has communicated to the *British Medical Journal* of June 9th an interesting article upon this subject. After giving a short history of the drug and mentioning such experiments as those of Berthe, who showed that seven and a half grains of codeine were sufficient to allay the irritability cf the intestines to such an extent that fifteen grains of arsenic given to a dog, so protected, failed to produce any symptoms of irritant poisoning. He concludes that the drug has a marked influence upon the sympathetic nervous system and particularly upon that part known as the solar plexus and its branches. Guided by this theory he administered codeia in cases of pain in the intestine and lower part of the abdomen due to various causes, for a full account of which we must refer our readers to the original article, but they included such affections as inflammation around the cecum, renal tumor in a patient who also suffered from dilated heart and pneumonia of the right base, impacted feces in the transverse colon, cancer of the liver and pancreas. The average dose was from half a grain to a grain, made into a pill with extract of gentian, three times daily. His conclusions were that codeine has a powerful action in allaying abdominal pain, and can be pushed to a much greater extent for this purpose than opium or morphine without causing drowsiness or interfering with respiration or with the action of the bowels. These are great advantages in such cases, as that in which there was weak heart and consolidation of the base, which would have made morphine dangerous; or in cases where we desire to retain a free action of the bowels. In long continued cases of enteralgia without organic disease, it continued to relieve pain for months together, without the dose being increased to more than one grain three times daily, and the same remark applies to its use in cases where malignant disease was present.

## MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, Cooper Medical College, San Francisco, Cal.

**Early Symptoms of Tabes.**—GALEZOWSKI, at a recent meeting of the Société de Biologie, directed attention to two symptoms, which, as a rule, escape recognition in the diagnosis of this disease. They occur at a time when no other symptom indicates its existence, and in numerous instances he has based the diagnosis of tabes merely on the existence of these symptoms, the future typical course of the affection justifying the opinion. The symptoms are, respectively, paralysis of the muscle of accommodation and anesthesia of the peri-orbital region. This paresis of the muscle of accommodation is unattended by mydriasis or paralysis of the other muscles innervated by the oculomotorius, as this paralysis is localized in only one eye, no disturbances of vision occur, when the patient sees with both eyes. This is an important means of differentiation from the paralysis of accommodation occurring after diphtheria, which is, as a rule, bilateral. The peri-orbital anesthesia is absent in paralysis following certain contusions of the eye as well as in paralysis of the accessorius due to syphilis.—*Weiner medizinische Presse*, June 3, 1888.

**The Etiology of Aortic Aneurisms.**—In order to determine the etiological factors involved in aortic aneurisms, KARL MALMSTEN has collected all the cases of this affection occurring in Sweden during the last fifty years and subjected them to a critical analysis. From the literature thus accumulated, the etiology in 80 per cent. of the cases is referred to syphilis, and in only 20 per cent. to senile degenerative changes in the artery. Traumatism and mycotic affections rarely conduce to aortic aneurisms. He is furthermore justified in concluding that syphilitic endoarteritis is more frequently encountered than like affections of the liver.—*Berliner klin. Wochenschrift*, June 4, 1888.

**The Local Treatment of Pulmonary Tuberculosis by Parenchymatous Injections of Creasote.**—ROSENBUSCH employs at first a one per cent. of the creasote solution, gradually increasing the strength until 5 per cent. is attained. He invariably uses almond oil as a diluent. The effects of these injections are, in his language, "often wonderful." Fifteen minutes after the injection the cough begins to disappear, and the spasmodic cough peculiar to phthisis has often been arrested by a single injection, notwithstanding the inefficacy of other medicaments. Five to eight hours after the injection a notable fall of the temperature can be observed. The temperature thus reduced may remain normal from 8 to 10 or 24 hours. After a few injections at intervals of two and three days the cough is almost completely arrested and the sputa very much diminished. The dyspnea and diaphoresis are soon ameliorated and the general condition of the patient improves. The percussion and auscultatory phenomena show decided changes. The local treatment of phthisis by these injections is indicated in all incipient cases; in chronic cases it may be employed with the hope of amelioration. The points usually selected for the injections are the apices, as they are usually the first seat of infiltration. When injections are made from the anterior surface of the thorax, the second intercostal space or even the supraclavicular region may be selected. Posteriorly, the fossa supraspinata are selected as the regions for injections. In only one case did hemoptysis follow puncture. The injections are made with an ordinary hypodermic syringe, with the use, however, of longer needles. The operation is comparatively painless and is usually well borne by the patient. Symptoms of intoxication, even after 18 injections, have never been observed by the author. He insists on the most pedantic cleanliness of the skin and of the instruments employed.—*Weiner medizin. Presse*, June 10, 1888.

**Simple Ulcer of the Duodenum.**—DR. W. W. JOHNSTON contributes an exhaustive article to the *American Journal of the Medical Sciences*, July, 1888, on this subject. Simple, round, or perforating ulcer of the duodenum is of the same nature as the round ulcer occurring in the stomach. Duodenal ulcer is less common than gastric ulcer; the proportions are as 1 to 30. The genesis of duodenal is the same as that of gastric ulcer, being usually found in the beginning of the duodenum, above the point where acid reaction is changed to alkaline. The most frequent seat of the ulcer is in the horizontal portion of the intestine, on its anterior wall, near the pylorus, above the openings of the biliary and pancreatic ducts. He introduces the following table as a means of differential diagnosis.

| GASTRIC ULCER. | DUODENAL ULCER. |
|---|---|
| 1. Most common in women from 20 to 30 years of age. | 1. Most common in men from 30 to 40 years of age.. |
| 2. Pain in epigastrium soon after eating. | 2. Pain in right hypochondrium 2 to 4 hours after eating. |
| 3. Pain relieved by vomiting. | 3. Pain not relieved by vomiting. |
| 4. Vomiting of mucus, bile, and food—gastric indigestion. | 4. Vomiting rare; no gastric indigestion. |
| 5. Hematemesis common. | 5. Hematemesis rare . |
| 6. Hemorrhage from intestines rare. | 6. Hemorrhage from intestines common. |

The treatment is essentially the same as in gastric ulcer.

**Myxœdema.**—The following in brief are the conclusions of DR. ORD in this report as Chairman of the Myxœdema Committee of the Clinical Society of London. (1) That myxœdema is a well defined disease. (2) That more women than men are affected and that the subjects are usually of middle age. (3) That clinical and pathological observations show that a destructive change of the thyroid gland is common to all cases. (4) That this change of the gland consists in the substitution of a delicate fibrous tissue for the proper glandular structure. (5) That interstitial development of fibrous tissue is observed in the skin, less frequently in the viscera, and that the same is suggestive of an inflammatory process. (6) That pathological observation, while showing cause for the changes in the skin during life and for the increased bulk of the body, owing to the excess of subcutaneous fat, affords no explanation for affections of speech, movement, sensation, consciousness and intellect, which belong to the symptoms of this disease. (7) That chemical examination fails to disclose an excess of muci in the tissues. (8) That in experiments, particularly on monkeys, symptoms resembling myxœdema have followed complete removal of the thyroid gland. (9) That in such experimental cases, an excess of muci was found in the skin fibrous tissues, blood and salivary glands, in particular the parotid gland, normally containing no muci. (10) That the removal of the thyroid gland in man is subsequently followed in many cases by symptoms resembling myxœdema. (11) That when the operation is not followed by such symptoms, the immunity in many cases is probably due to the development of accessory thyroid glands, to incomplete removal or to insufficiently long observation of the patients after operation. (12) That whereas injury to the trachea, injury of the laryngeal nerves, etc., have been supposed by some observers to be the true cause of experimental myxœdema, there is no evidence to show that of the numerous surgical operations performed on the neck and throat, involving various organs and tissues, none, save those in which the thyroid gland has been removed, have been followed by the symptoms under consideration. Pathological destruction of the thyroid gland has been followed by myxœdema. (13) That, whereas, according to clause 2 in myxœdema, women are more often affected than men, in the operative form of myxœdema no such difference is observed. (14) That myxœdema, as observed in adults, is similar to the disease named sporadic cretinism, when affecting children; that myxœdema is probably identical with cachexia strumipriva, and that a very close affinity exists between myxœdema and endemic cretinism. (15) That while these several conditions appear, in the main, to depend on or to be associated with destruction or loss of the function of the thyroid gland, the ultimate cause of such destruction or loss is at present not evident.—*Medical Press*, May 30, 1888. In the *American Journal of Medical Sciences*, July, 1888, Hun reports four cases of myxœdema with two autopsies which are supplemented by a very elaborate microscopical report by Prudden on the tissues involved in the disease.

**The Treatment of Diabetic Coma.**—DR J. HESSE refers to the researches of Stadelmann (*Archiv. f. Exper. Pathologie*, Bd. xvi., s. 419), who considers the probable cause of diabetic coma to be due to an acid intoxication of the organism. Stadelmann also considers the possibility of combatting the coma by the administration of alkalies. His suggestion was adopted by Minkowsky and Wolpe (*Ibid.* Bd. xxi, p. 138), who gave to two diabetic patients in a comatose state, a three per cent. solution of carbonate of soda, in the one case by the mouth and rectum, and in the other by intravenous injection. The good effect observed in these cases was only temporary, both patients dying comatose. Minkowsky reported still later, another case of "coma diabeticum," treated by subcutaneous and intravenous injections of a three per cent. solution of carbonate of soda. In this case the results were favorable. Author reports a fourth case, similarly treated, but with a four per cent. soda solution, the result being excellent as far as the coma was concerned. He concludes his article by highly recommending venous transfusion of carbonate of soda solution in all cases of diabetic coma.—*Berliner klin. Wochenschrift*, May 7, 1888.

**The Micro-Organisms of the Normal Male Urethra and Urine.**—The bacteriological investigations of LUSTGARTEN and MANNABERG on this subject, allow them to conclude as follows: In the mucous membrane of the normal urethra, various kinds of bacteria and cocci may be found. At present, as many as eleven different kinds could be differentiated after cultivation. They call attention to the smegma bacilli, which morphologically and in their behavior to coloring fluids, simulate the bacilli of tuberculosis. The morphological determination of gonococci in the urethral secretion, especially in chronic urethritis, is not pathognomonic, for in three boys, aged, respectively, 9, 11 and 13 years, whose urethræ were absolutely normal, diplococci morphologically identical were found. Microörganisms may be found in normal urine, but they are probably obtained in the passage of the urine through the urethra. By means of a sterilized catheter, urine may be obtained which is not contaminated in this manner. Whether microbes normally exist in the urine, is a question which they still have under consideration. In three cases of "acute Bright's disease," a great number of streptococci could be found, which disappeared on disappearance of the disease. They accept, with reserve, the relation borne by these microörganisms to acute idiopathic Bright's disease.—*Münchener med. Wochenschrift*, May 8, 1888.

**The Value of Tubercle Bacillus in Clinical Diagnosis.**—DR. PERCY KIDD and MR. H. H. TAYLOR demonstrate the value of examining the sputum in all cases of disease of the respiratory organs of doubtful nature. Only those cases were dealt with, where the other recognized methods of clinical investigation failed to indicate a definite diagnosis. In the great majority of cases, numbering over ninety, positive results were obtained. The detection of tubercle bacilli was often very difficult and repeated examination might be necessary where the number of the bacilli was very small. Success is largely based on the following points: Judicious selection of the sample of sputum; method of preparation and staining; careful examination, with suitable appliances. The cases described were divided into five main groups: 1. No physical signs of disease of the respiratory organs. 2. Laryngeal disease of uncertain nature without definite pulmonary signs. 3. Signs of bronchitis, with or without emphysema. 4. Signs of pleurisy. 5. Signs of doubtful import—(*a*) anomalous physical signs; (*b*) slight signs at the apex; (*c*) signs confined to or marked at the base. For the purposes of prognosis, they attribute but little value to the tubercle bacillus.—*British Med. Journal*, May 26, 1888.

# Sacramento Medical Times.

**JAMES H. PARKINSON, L. R. C. S. I., EDITOR.**

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**COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.**

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SACRAMENTO: AUGUST, 1888.

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## THE ARTIFICIAL FEEDING OF INFANTS.

This subject has recently attracted considerable attention in consequence of the report of the special committee of the American Medical Association on Infant Foods and Feeding. In conjunction with this the *Philadelphia Medical Times* publishes a "Symposium on Infant Feeding," embodying the opinions of several authorities, and constituting a valuable contribution to the subject. More recently Dr. A. V. Meigs has incidentally touched upon the question when writing on the Dietetic Management of the Summer Diarrhea of Infants,[1] and Dr. Simon Baruch[2] and Professor Victor C. Vaughn[3] have dealt with the subject from a microbic standpoint. As we are now in the midst of the season when intestinal troubles in infants are prevailing it will be profitable to review the most common predisposing cause, the artificial feeding of the victims of the disease.

The Association Committee on Dietetics truly says that "the mode of feeding children and treating them under one year of age is in many cases almost criminal." This evil it traces to the character of the milk employed and to overfeeding, the hot weather and overcrowding being incidental factors. In relation to simple diarrhea or inflammatory troubles this position is no doubt correct, but with true cholera infantum the high temperature is certainly the most potent influence. Starting with the fact that the proper food for an infant is its mother's milk, we should suppose that the best substitute was one which most nearly approaches it in physical and chemical properties. We shall not mention nurses' milk, regarding it as unattainable in the vast majority of cases, unnecessary in any and always repugnant to parental feeling.

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[1] Medical News. [2] Medical News. [3] Boston Medical and Surgical Journal.

The question of an efficient substitute is involved in much difficulty, for the reason that infants will exist and healthy children be reared by widely different methods; and also from the fact that undoubted authorities are inharmonious in opinion and disagree on matters of simple experiment. Thus, Dr. Eustace Smith states that the casein of cows' milk, as the rule, traverses the infant's alimentary tract and may be found unchanged in the feces; while, on the other hand, Escherich, having fed a healthy infant, ten weeks old, on pure cows' milk, one quart per diem, on examination of the feces found an almost ideal digestion of casein, he says: "There can be no doubt that healthy nurslings are capable of utilizing in the most complete manner cow casein in quantities far in excess of their requirements of nitrogen." Uffleman and Foster have reached similar conclusions. The difficulty is not lessened by the fact that infants have been successfully fed on such widely different agents as pure cows' milk, broth, and gruel, whilst it is an undeniable fact that healthy children have been reared on each of the six foods advertised in this journal. It is also a clinical fact that infants will not always thrive on what would seem to be the best diet, and that they will retain and assimilate one food while rejecting another which is theoretically superior, and thousands of infants annually survive a diet into which bread, cane sugar, vegetables, and even tea and coffee enter as regular constituents. The physician in selecting a particular food or method of feeding must take into account all the circumstances of the case before forming an opinion. He must also be prepared to change the food when found to disagree, or where assimilation appears to be defective.

The basis of the infant dietary should be cows' milk, and we believe that for ten or twelve months this should not be supplemented by any food matter. After the seventh month, by which time a healthy infant will have learned to drink freely, it will usually assimilate cows' milk without much trouble; but it is in the first few weeks of its existence that the necessity for careful supervision exists. Speaking generally, cows' milk differs from human milk in containing more casein, less fat and less sugar, being acid in its reaction, and also in the important detail that the casein of cows' milk forms a firm curd in masses of considerable size. It would therefore appear that a process which would closely assimilate cows' milk to the human secretion, and which would be simple and comparatively inexpensive, should meet the requirements.

This is the ground taken by the sub-committee of the association, which states that "one of the most decided advances in dietetics in modern times is the preparation of cows' milk with the aid of digestive agents, as in the method recommended by Prof. Frankland." The report goes on to say that the employment of stale, foul smelling, partly decomposed digestive ferments is condemned, and adds that the necessary skill and intelligence required to insure uniformity of result in the extemporaneous peptonizing of milk is rarely to be found in the household. That the partial peptonization of cows' milk is a most decided advance, we believe; but is Frankland's method a process of peptonization? It is in practice a curdling of milk by rennet, a beating up of the curded milk and straining off a portion of the curds. Can milk be peptonized by rennet? or can albuminoids be converted into peptone by pepsine except in the presence of an acid? There has been for some time before the profession an effectual and simple method of peptonizing, in any degree, cows' milk. Its odor is not as bad as that of the best pepsines. Of the partial decomposition we cannot speak from knowledge, but we know from a somewhat extended experience that it is perfectly reliable and sufficiently simple to enable any mother of average intelligence to carry it out.

Much of the dissatisfaction which has been expressed in connection with this process is traceable to the fact being overlooked that precisely the same care should be exercised with the milk as when the process is not employed, for should the milk be tainted or poisonous the peptonization will not affect its toxic properties. Milk is of all fluids the most readily contaminated or spoiled. It is also a most sensitive secretion, varying in qualities and properties with the condition of the animal, its diet and environment, and when affected by any of these, the process of predigestion leaves the particular character of the milk unaltered. The milk intended for the child should be obtained from the best possible source and should not (contrary to established custom) be the product of one cow, unless that animal is under careful personal supervision. Immediately upon being received it should be thoroughly boiled and then set aside in a cool place, being kept apart from the general supply of the household. It is a popular fallacy that boiling milk renders it difficult of digestion, the contrary being true, as it hinders the formation of hard masses of casein. The dilution of the milk will depend principally upon its special character, and next upon the age of the child and the method of feeding employed.

In cases where the milk supply is of doubtful or uncertain character, it will be advisable to abandon its use and rely exclusively upon one of the milk foods which are intrinsically amply sufficient for the proper nourishment of the child When the milk supply is beyond exception the addition of the so-called "Liebig foods" will often produce the happiest results, even in cases where peponization has not been satisfactory. We repeat that the practitioner must rely upon his own judgment in ascertaining that method which is best suited to his patient, and in temporarily suspending it or permanently substituting another when unsatisfactory.

In connection with the care of cows' milk it may be well to emphasize the fact that simply bringing the milk to the boiling point, or even boiling it in an open vessel, will not sterilize it, though sufficiently altering its condition to enable it to be kept for a greater length of time than when unheated. Careful experiment has proved that it is necessary to boil the milk for some time, and under pressure, a practical method for which will be found in another column.

The infant when artificially nourished should be regularly and sufficiently fed. Under no circumstances should feeding be resorted to as a method of quieting a child unless the necessity for food really exists. The most scrupulous care should be observed with the feeding apparatus; dangerous tubes should be discarded and an easily cleansed nipple employed. The bottle should be of good clear glass, and devoid of angles in which particles of milk may lodge. The apparatus should be thoroughly scalded after use and any remnant of the meal rejected.

It will here be pertinent to allude to a fruitful cause of peevish infants and sickly children—the withholding of good pure water as a drink. When teething and during hot weather, infants often suffer dreadfully from thirst through the ignorance and prejudice of their nurses. The water for the baby should be well boiled and then cooled without the addition of ice, and the infant should be allowed at all times to drink as much as it desires.

## NOTES.

### Pediatrics Amongst the Piutes.

The *Reno Gazette* describes the method of treatment adopted by a Piute medicine man in the case of a sick papoose, evidently suffering from some abdominal affection. The patient was lying on a rabbit-skin robe, the medicine man kneeling near the papoose, and between him and the patient a large arrow was stuck in the ground. He had four assistants sitting in a semicircle on his right and kept up a continuous dismal howling in which his quartette of assistants joined at intervals. After chanting, the medicine man arose to his feet and walked around a small fire in the centre of the inclosure seven times, chanting and beating time with a bunch of ''deer nails'' tied with a string to the end of a round stick, which is used as a charm to keep evil spirits away. With a wild yell he again dropped on his knees, bared the papoose's abdomen and began sucking its umbilicus for about five minutes. During this process his four assistants kept up a continual howling. The medicine man again arose to his feet, walked around the fire while a noise was heard in his throat as if in the act of gargling. The above process is continued until the patient recovers or dies. Fees are not exorbitant, as if a cure is effected three dollars is the compensation allowed. On the other hand if three consecutive patients die under the treatment the practitioner is cremated alive.

### The Journal of the American Medical Association.

With the number for July 9th, the eleventh volume of the Association Journal commences. It has been further enlarged by the addition of four pages, the paper is of an improved quality and the type throughout is of a new and handsome series. These evidences of prosperity are most gratifying, particularly when it is remembered that the Journal is now a source of revenue to the Association. Regarding the management of the Journal, which has of late been somewhat severely criticized, it must be borne in mind that the resources at its command are comparatively limited, and that strict economy is the rule. On reflection it will also occur to most people that it would not be possible to conduct a medical journal in perfect harmony with the views of over 5,000 physicians. Just criticism is always desirable, but we think that the strictures at times have been neither courteous nor fair, which is the more surprising, as the writers are *de facto* proprietors of the Journal, and should be more interested in its success than anxious (apparently) to attend the obsequies.

### Dr. Milner Fothergill.

The death of Dr. Milner Fothergill removes a very well known figure from medical society in London. He was born in April, 1841, and was, therefore, only in his forty-eighth year; but he had long been the subject of diabetes mellitus, of which he made very light, always refusing to give his ailment that dreaded name. He appeared to be in his usual health until about the end of May, when gangrene of the foot set in, and, after a temporary rally, he died somewhat suddenly of diabetic coma on June 28th. Dr. Fothergill was necessarily a conspicuous figure wherever he went, and a certain eccentricity of dress, which rather tended to exaggerate his physical peculiarities, contributed to attract the attention of casual acquaintances whose interest was maintained by his really brilliant conversation. He was, in fact, a first-rate talker, and also—what all good talkers are not—a stimulator of talk in others. He told north-country stories with the true Westmoreland burr, and retained many of the old-fashioned words which have fallen out of use. He wrote in a style which was sometimes florid and inexact, but never dull. He was not a fluent speaker of set speeches, and never had the opportunity of teaching at a medical school. Nevertheless he enjoyed a considerable practice, and few physicians of the same standing could number so many professional brethren among their patients.

### A Medico Legal Case.

The following case, a report of which appears in the *British Medical Journal*, is very important in again demonstrating the fact that a man is capable of voluntary movement to a considerable degree after the infliction of a wound presumed to be immediately fatal. A colored man (in the island of Jamaica) having murdered his sweetheart, entered his house and cut his throat with a razor. Some persons, who had witnessed both deeds, rushed into the house, but were unable to find him. On further search his dead body was found under the house, which was elevated from the ground about two feet. He thus traversed a distance of 16 feet to the rear entrance, then crawled through a hole in the partition and made his way to a point immediately beneath that from which he started, a total distance of 32 feet. On examination, the throat was found to have been cut from ear to ear by a clean sweep. Both carotids and jugulars being divided as well as the trachea and esophagus, the wound reaching to the anterior portion of the bodies of the cervical vertibræ.

### The New Orleans Quarantine Station.

At the request of the Louisiana State Board of Health, a test of the efficiency of the modes of disinfection employed by it was made by Assistant Surgeon J. J. Kinyoun, U. S. Marine Hospital Service, and the result has been published in Vol. III., No. 26, *Weekly Abstract of Sanitary Reports.* Surgeon Kinyoun finds that the principles of the methods of disinfection correct, but faulty in their application, and he adds that, "so far as it is possible, the methods now practised will be so modified as to secure the greatest efficiency attainable with the present form of apparatus, and as soon as it can be done the station will be removed to another place and a new plant erected having sufficient capacity to handle and disinfect vessels thoroughly and expeditiously." The superheating chamber, in which clothing, bedding, etc., was said to be exposed to a temperature of 230° to 240° F. for 20 minutes, gave a maximum reading of 133° (C?) and a minimum of 93.5° in 53 minutes, the chamber being empty. In another test of 25 minutes with the chamber charged to its full capacity, one thermometer placed between matresses and blankets failed to indicate 100 (C?) whilst another in free air space indicated 110. Several tests of the superheating chamber were made by exposing cultivations of microörganisms in portions of it where the minimum temperature was to be expected. The microbes employed included those of cholera, anthrax, enteric fever, pneumonia, yellow fever (?) and the pyogenic cocci. In eight experiments temperatures ranging from 52° (C) to 99° (C) were obtained. In one experiment all the microörganisms were killed. The results with the sulphur dioxide fumigation of vessels was much less satisfactory. In several experiments with exposures of from 1 to 20 hours no effect was observed on many of the organisms, all being alive in several instances. In another experiment a litre of air was collected in the ship's hold before and after the fumigation process (with an exposure of from 1 to 8 hours), but in no case was there any perceptible effect on the microbes. Having pointed out the defects in the system, Surgeon Kinyoun concludes with the statement "that the establishment of the present style of apparatus is a great stride in the right direction, and has demonstrated its feasability and the correctness of the principles involved."

# SOCIETY PROCEEDINGS.

## SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

*Regular Meeting June 26, 1888.*

The President, J. R. LAINE, M. D., in the Chair.

**Election of Secretary.**—DR. G. L. SIMMONS, JR., the Secretary and Treasurer of the Society, having resigned his position in consequence of prolonged absence from the city, DR. F. L. ATKINSON was elected to fill the vacancy.

**Report of Cases.**—DR. T. W. HUNTINGTON exhibited a case of double amputation with reference to locomotion upon two artificial limbs. The patient was able to walk easily with the aid of an ordinary cane. He also exhibited a case showing the result of an operation upon a cicatricial constriction in the axilla, caused by a burn; and another illustrating the efficacy of sponge grafting (*vide* pp. 362 *et. seq.*)

DR. HUNTINGTON read a paper entitled *Surgical Notes and Memoranda* (published at page 356).

DR. G. A. WHITE, in opening the discussion, said that he found but little to criticize in the paper. He was much pleased with the results in double leg amputation. He regarded drainage as the great secret of success in operative surgery. The method of treating burns, which had been mentioned, was good. In operating for hemorrhoids, he believed that the method by continued suture gave better results than any other.

DR. W. A. BRIGGS referred to the importance of asepsis and antiseptics. Manual dexterity counted for but little as compared with antiseptics in the successful issue of surgical cases.

DR. G. L. SIMMONS, in comparing the results in capital operations mentioned by Dr. Huntington and those attained by Dr. White, directed attention to the unfavorable character of the subjects received at the County Hospital as materially influencing the result. He regarded the patients received at the Railroad Hospital as representing a picked class, of good physique and free from debilitating influences. In the treatment of hemorrhoids he had found that injections of carbolic acid and glycerine had been very satisfactory. It was not invariably successful, but it was a painless and quite successful method.

DR. F. B. SUTLIFFE said that in treating extensive burns after the manner employed by Dr. Huntington, he had found it advisable to gradually withdraw the iodoform and rely on the bismuth alone which he had found to give as good, if not better results.

DR. HUNTINGTON, in replying, said that his results with the injection method in hemorrhoids had not been encouraging, and he had found that the interrupted ligature was the best procedure. Regarding the combination of bismuth and iodoform in burns, he fully agreed with Dr. Sutliffe. When the slough separated, bismuth could be used with advantage alone. He would strongly advocate the systematic noting of cases and the preservation of a record, and he believed that every practitioner could learn much from the perusal of his own cases.

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## SAN FRANCISCO COUNTY MEDICAL SOCIETY.

### *Regular Meeting May 8, 1888.*

The President, J. D. ARNOLD, M. D., in the Chair.

**New Members.**—Geo. W. Fuller, F. S. Cook and F. B. Carpenter were duly elected members of the Society.

**Albuminuria.**—Dr. Wm. F. McNutt made some remarks on the pathology of albuminuria. He referred to the confusing nomenclature used in the description of the different varieties of Bright's disease and thought that much of this might be avoided by naming them according to the individual tissue affected in each class. He said that so far as the morbid anatomy of Bright's disease was concerned, we might regard the kidney as made up of but three tissues—blood vessels, tubules and interstitial tissues, and that the disease consisted in an affection of one or more of these three tissues. Among other things he referred to suppression of urine, and said that in tubular nephritis it was due to casts formed in the primary convoluted tubes, being unable to pass through Henle's loops which are of much smaller calibre; while in a pure glomerulo-nephritis the same result was produced by the position of the capsule reflected over the glomerulus compressing the vessels and preventing transudation.

DR. J. B. STALLARD did not think that the subject of albuminuria could be reduced to such a simple scheme as that proposed by Dr. McNutt. We should not seek an explanation of all the features of albuminuria in the morbid changes in the kidney, as, without doubt, the circulatory system, together with the vaso-motor centres and nerves, played a very prominent part.

DR. GEO. CHISMORE agreed with Dr. Stallard, and thought that it would hardly be possible to reduce diseases of the kidney to so simple a system as that proposed, since nearly a dozen different forms of albuminuria had been diagnosed and verified by autopsies. He thought that the general condition of the body should be more carefully considered, both in relation to the pathology and treatment of the disease.

## PUBLIC HEALTH.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal.

**Mortality.**—The deaths registered in 71 town districts of the State during the past month, in a population of 711,100, correspond to an annual rate of 16.33 a thousand, the mortality having been 968. 156 deaths were due to zymotic diseases, giving an annual rate of 2.63 Of these 16 resulted from diarrhea and dysentery, 47 from cholera infantum, 28 from diphtheria, 9 from scarlet fever, 36 from typhoid fever, 7 from remittent fever and 6 from cerebro-spinal fever. 248 deaths resulted from diseases of the respiratory organs, giving an annal rate of 4.18 a thousand. Of these 156 were due to consumption, 66 to pneumonia, 16 to acute bronchitis and 10 to congestion of the lungs. The average annual death rate, from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 546,000, was 16.63. The highest death rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose, the rate having been 19.20 a thousand. The lowest was reported from Los Angeles, the rate having been 6.85.

**Cholera.**—In view of the reported outbreak of the cholera in Hong Kong, China, and the intimacy of our commercial relations with that nation, it becomes the residents of the Pacific Coast States to put their house in order *now*, for there is indubitable evidence that cleansing and purifying during the prevalence of the disease in question, is not only not beneficial, but positively injurious—especially the emptying of privies and cesspools, and the removal of all decaying, moist *débris*, as well as the exposure to the air of earth impregnated with decomposing products. Nor will the observance of the strictest hygienic measures prevent the development of the cholera, provided its germ be imported and obtain lodgment in a soil favorable for its propagation. Under no circumstances has it ever originated in any country, excepting in its native home on the Ganges. Its method of travel is strictly in accordance with the intercommunication of the different nations. It is in no respect prevented from crossing mountains, but it can only do so by means of persons or their portable effects; and, however adverse the winds may be, they form no barrier to its progress, provided affected beings or their personal effects are transported in any direction. Whether or not the comma bacillus of Koch be the pathogenic element, does not concern us materially at present; it is of the utmost importance to us, however, to *know* that it is a portable entity, which cannot be transferred from one locality to another by means of the air, as had been maintained until recently. 'Tis true that it has been known to break out suddenly in mid-ocean, thousands of miles from land, and upon vessels which had left clean ports, but it has never been shown that no portion of the cargo of such vessels had not come from a cholera-infected district. Besides, in all such cases, it is a fact that the disease always broke out after exposure of a portion of the cargo and when it had been handled and opened out by passengers or crew. But while it cannot break out spontaneously, and while no amount of filth, bad food or unhygienic influences can originate it, no one disputes the statement that it is thereby rendered more malignant and liable to spread. The evidence that it is communicated very generally by means of drinking water, or by food contaminated with choleraic germs, is indisputable; and that it is not communicated from one individual to another, as are small-pox, measles, scarlet fever, etc., is equally certain. To produce the cholera the germ must be swallowed—and not only must it be swallowed, but it must run the gauntlet of the stomach and reach the intestines, where alone it finds favorable soil for its propagation, and whence its deleterious effects first become manifest. But even should the germs be swallowed the probabilities are that they will be there digested, provided a good and healthy digestion of acid reaction be maintained. To avoid being attacked with the cholera, we should, therefore, cleanse and purify *now.* We should obtain and maintain an abundant supply of good and pure water, which, in cholera times, should always be boiled before being drank. We should keep our stomachs in a healthy condition of acid reaction, for which purpose we should drink freely of acids, properly diluted, especially sulphuric acid, under the direction of intelligent physicians. We should live upon wholesome food; our sewers and drains should be made as perfect as possible, and our spirits should be kept buoyant and tranquil. These are the measures which should be adopted for the prevention and cure of the cholera, for these are the enemies of the bacillus which causes it.

## METEOROLOGY.

By J. W. ROBERTSON, B. A., M. D., Assistant Physician to the State Asylum for Insane, Napa, Cal.

**Temperature.**—The mean temperature along the coast was slightly diminished, this diminution being due to cooler nights. During the day there was but a slight decrease from the average. In the modified coast and valley belts this difference was not so marked; in nearly all localities reported there being a close approximation to the normal.

**Rainfall.**—Along the coast, north of Cape Mendocino, the rainfall was heavy, and it was accompanied by winds characteristic of the winter. The storm centre was in the Pacific, and was by far the most severe ever reported during the month of June. Local showers were reported in various parts of the State, and were unusually heavy along the coast range, on the western slope of the Sierras, and more especially on the highlands of Shasta and Siskiyou, situated on the southern slope of the Siskiyous. The majority of these rain-bearing clouds came from the south, but elevation was necessary to precipitate their moisture. The number of cloudy days was unusually large.

# California—Tabular Statement for June, 1888.

| STATIONS. | TEMPERATURE. | | | | | | RAINFALL. | | Mean Relative Humidity ........ | WEATHER. | | | WIND. | FURNISHED BY— |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean.......... | Highest ........ | Lowest.......... | Mean Highest.......... | Mean Lowest.......... | Mean Daily Range ........ | No of Days Rain Fell.... | Total Rainfall.......... | | No. of Clear Days....... | No. of Fair Days......... | No. of Cloudy Days......... | Prevailing Direction. | |
| Auburn ..........Cal. | 66.9 | 94.0 | 52.0 | ......... | ......... | ......... | ...... | 1.55 | ......... | ...... | ...... | ...... | S. | Southern Pacific Co. |
| Colfax............ " | 65.4 | 97.0 | 52.0 | ......... | ......... | ......... | ...... | 0.69 | ......... | ...... | ...... | ...... | N. | " " " |
| Eureka........... " | 58.8 | 71.1 | 46.9 | 64.9 | 53.8 | 11.1 | 15 | 4.66 | 84.9 | 2 | 13 | 15 | N. | Signal Service U.S.A. |
| Fresno........... " | 74.0 | 103.5 | 50.5 | 88.2 | 58.5 | 29.7 | 0 | trace | 51.8 | 21 | 9 | 0 | NW. | " " " |
| Keeler. .......... " | 73.9 | 96.0 | 48.5 | 86.2 | 60.6 | 25.6 | 2 | 0.20 | 26.3 | 22 | 7 | 1 | SE. | " " " |
| Los Angeles.... " | 67.5 | 94.0 | 50.5 | 82.2 | 56.2 | 26.0 | 0 | 0.00 | 74.1 | 17 | 12 | 1 | W. | " " " |
| Monterey ....... " | ......... | ......... | ......... | ......... | ......... | ......... | ...... | ......... | ......... | ...... | ...... | ...... | ........... | Southern Pacific Co. |
| Napa.......... . " | 63.5 | 84.0 | 46.0 | 73.9 | 53.0 | 20.0 | 6 | 0.42 | . ....... | 20 | 7 | 3 | S. | Sta. Napa Ins. Asylum |
| Oakland......... " | 63.0 | 80.0 | 53.0 | ......... | ......... | ......... | 7 | 0.46 | 82.99 | 18 | 7 | 5 | SW. | J. B. Trembley, M.D. |
| Paso Robles.... " | 77.0 | 102.0 | 55.0 | ... .... | .. | ......... | ...... | 0.00 | ......... | ...... | ...... | ...... | S. | Southern Pacific Co. |
| Red Bluff....... " | 70.7 | 99.2 | 49.0 | 82.5 | 57.8 | 24.6 | 11 | 2.61 | 52.8 | 15 | 11 | 4 | S. | Signal Service U.S.A. |
| Sacramento. ... " | 67.7 | 96.0 | 48.5 | 80.8 | 55.2 | 25.5 | 4 | 0.08 | 59.5 | 17 | 9 | 4 | SW. | " " " |
| San Diego....... " | 65.9 | 76.2 | 54.0 | 72.4 | 60.4 | 12.0 | 1 | 0.04 | 60.4 | 5 | 17 | 8 | SW. | " " " |
| San Francisco.. " | 61.0 | 79.9 | 53.2 | 68.9 | 55.9 | 13.0 | 8 | 0.27 | 76.6 | 12 | 10 | 8 | W. | " " " |
| Santa Barbara.. " | 64.0 | 82.0 | 50.0 | 73.0 | 55.0 | 18.0 | .... | trace | ......... | 22 | 5 | 3 | SE. | Hugh D. Vail. |
| Santa Cruz ... " | 67.0 | 95.0 | 55.0 | ......... | ...... | ......... | .... | 0.09 | ......... | ...... | ...... | ...... | S. | Southern Pacific Co. |
| Yuma...........A. T. | 85.6 | 106.9 | 60.0 | 100.3 | 67.8 | 32.5 | 0 | 0.00 | 29.6 | 30 | 00 | 00 | S. | Signal Service U.S.A. |

Blank (......) indicates data missing.

CLEAR DAY—One on which cloudiness is 3 or less on a scale of 10. FAIR DAY—One on which cloudiness is from 3 to 7.
CLOUDY DAY—One on which cloudiness is over 7.

## REVIEWS AND NOTICES.

THE USE OF ELECTRICITY IN THE REMOVAL OF SUPERFLUOUS HAIR, AND IN THE TREATMENT OF VARIOUS FACIAL BLEMISHES. By George Henry Fox, M. A., M. D., Clinical Professor of Diseases of the Skin, College of Physicians and Surgeons, New York; Professor of Diseases of the Skin, New York Post-Graduate Medical School, etc. Leisure Library Series. Detroit: Geo. S. Davis. Price, 25 cents.

The proper method of removing superfluous hairs and treating other cutaneous blemishes by electricity is often a subject of inquiry by the general practitioner. In this little book he will find full directions conveyed in simple and practical language. The volume is composed of a series of papers which have been read before various societies or published in the medical journals. These have been collated and explanatory notes, suggested by further experience, have been freely introduced. The author deems it necessary to remind his readers that electrolysis cannot be performed with a faradic or cautery battery, and that the continuous or galvanic current is essential. He advises that when operating, the circuit shall always be closed with the sponge of the positive electrode, thus greatly lessening the inevitable shock. We would suggest that where the term "cell" is used some further description should be given, and that a more accurate measurement of current strength might have been included. His confidence in this method of treatment is shown in the statement that "the possibility of permanently removing a growth of hair from any part of the body, no matter how abundant, is beyond all question." The treatment of nevus, telangiectasis, fibroma simplex, acne rosacea and other cutaneous affections is also considered. While extensive operations by electrolysis are best left in the hands of specialists, the management of ordinary cases can be undertaken by any intelligent practitioner.

A DESCRIPTION OF THE DESICCATED HUMAN REMAINS IN THE CALIFORNIA STATE MINING BUREAU. By Winslow Anderson, M. D., San Francisco. Sacramento: State Printing Office.

This pamphlet consists of a description of four naturally mummified or desiccated human bodies, which were discovered in an hermetically sealed cave on the southern slope of the Sierra Madre mountains, in Mexico, at an elevation of 7000 feet. The bodies are those of a man and woman and two children, male and female, and are in excellent preservation. The measurements, which have been carefully made, show that they were of good physique and presumably of fair intellectual development. The internal organs are well preserved and can be readily identified. Dr. Anderson does not express a positive opinion as to the age of the remains, but suggests that they belong to the era of the Spanish invasion, or perhaps antedate it.

THE MODERN TREATMENT OF PLEURISY AND PNEUMONIA. By G. M. Garland, M. D., Instructor in Clinical Medicine, Harvard Medical College. Leisure Library Series. Detroit: Geo. S. Davis. 1888. Paper, 25 cents; cloth, 50 cents.

More than a review of the modern methods of treatment in pneumonia and pleurisy can hardly be expected in a compendium like this. The author, however, introduces new and original matter, based on personal observation and experimentation, in dealing with the objective symptomatology of pleurisy. In the chapter devoted to pneumonia, there is a most excellent critical review of the theories concerning the microbiotic nature of this disease. This compendium can be read with unusual interest by the practitioner.

THE ESSENTIALS OF MEDICAL CHEMISTRY AND URINANALYSIS. By Sam E. Woody, A. M., M. D., Professor of Chemistry and Public Hygiene in the Kentucky School of Medicine. Second edition. Louisville: John P. Morton & Co. 1888.

This work represents the essential facts of a course of lectures delivered on these subjects. While that part of the book devoted to chemistry is a brief though faithful exponent of modern chemistry, the section devoted to the urine is comparatively meagre and certainly insufficient, even for the wants of a medical student. It is worthy of recommendation as a text book of chemistry for the use of medical students.

THE APPLIED ANATOMY OF THE NERVOUS SYSTEM. By Ambrose L. Ranney, A. M., M. D., Professor of Anatomy and Physiology of the Nervous System in the New York Post Graduate Medical School and Hospital, etc., etc. Second edition. New York: D. Appleton & Co. 1888.

When compared with the first edition, this is virtually a new work. We observe, particularly with reference to the section on the brain, a great deal of new matter, dealing with the recent progress made in the anatomy and physiology of this important organ. This volume is enlarged and profusely illustrated by many new cuts and diagrams, which fully illustrate the author's methods of teaching and afford the student a most ready means of acquiring a thorough knowledge of neurological anatomy and physiology. In treating the present subject, Professor Ranney has simplified the most prolix department of medicine, viz., neuropathology. In the collection and arrangement of the material, he seems to recognize that no anatomical or physiological fact is worthy of consideration unless possessed of some important practical bearing in medicine. Were all books in medicine written after this manner, we would have less literature but more knowledge. We have no hesitancy in pronouncing this the representative work in the English language on the applied anatomy of the nervous system.

THE INTESTINAL DISEASES OF INFANCY AND CHILDHOOD. By A. Jacobi, M.D., President of the New York Academy of Medicine, etc. Physician's Leisure Library Series. Detroit: George S. Davis. Paper, 25; cloth, 50 cents.

The fatality of infantile diseases, their frequent occurrence on evitable causes, and their usual amenability to timely and appropriate treatment, render their study of the utmost practical importance. Helpless infancy, however, has long been overwhelmed by the swelling flood of gynecological literature. Little room is left either on the physician's library shelves or in his brain for aught else. This is right, perhaps. We have just passed through an era of gynecological discovery that leaves our female patients in need of but little else—than rest. They have led the merry dance between Sims and Emmet, between discussion and colporraphy, and have paid the distinguished artists well. *Requiescant in pace*. From the fullness, and maturity of his experience Dr. Jacobi has produced an instructive and especially a suggestive book. We have but little to criticize in the matter, but much in the manner. When he wrote "A thing of beauty is a joy forever," Keats very likely had not medical books in mind, but it is as true of them as of anything else. The constant use of "that" for this, "those" for these, "this last" for this "percentage" for rates, etc., grates very harshly on the ear attuned to idiomatic English. "A percentage of fifty per cent." is almost without precedent even in so-called "medical literature." Let us hope that these and numerous other barbarisms may be eliminated from future editions of this otherwise excellent work.

DISEASES OF THE FEMALE MAMMARY GLANDS, by Th. Billroth, M.D., Professor of Surgery at the Royal University, Vienna, and NEW GROWTHS OF THE UTERUS, by A. Gusserow, M.D., Professor of Obstetrics and Gynecology at the University of Berlin. Edited by Egbert H. Grandin, M.D., Obstetric Surgeon to the New York Maternity Hospital, etc. New York: Wm. Wood & Co. 1887.

Although the names of the authors of this work are familiar wherever surgery aud gynecology are known, their works, unfortunately, are known outside of Germany almost exclusively by translation. Kant once said: "Of my pupils only Rosenkranz understands me, and he misunderstands me." If translation from mind to mind even by means of a common language is so difficult, and in rare cases impossible, what must we say of that double translation necessitated by difference of mother tongues? The opening sentence of the work in hand brings this thought forcibly to mind: "Underneath the skin, on each side of the sternum, are situated two glands, which in the female alone reach their fullest devolopment." Without consulting the original, one may well doubt, if not deny, that Billroth committed this glaring grammatical, not to say anatomical, blunder. Translations, however, we must have, until some yet undiscovered volapük undoes that Babel of tongues, which seems one of the greatest barriers to scientific progress. Notwithstanding its inauspicious beginning this translation is, all in all, an excellent one; and, indeed, gives the esthetic soul fewer shocks than much that passes for original English. The work itself, succinct yet comprehensive, deserves a place in every medical library.

THE PHYSICIAN'S BEDSIDE RECORD. Hartford, Conn.: The Plimpton Manufacturing Company.

The "Record" measures 3¼x6¼ inches, each book being intended for one patient. It provides for systematic notation, one page being provided for each day (28), and one line for each hour. There are pages for notes and history, and a clinical chart for twenty-eight days. The cost of this little book is only two cents, and in certain cases its arrangement will save time and insure accuracy.

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## BOOKS AND PAMPHLETS RECEIVED.

Nouveau Procédé poor Guérir les Rétrécissements de l'Urèthre Rapidement et sans aucun Danger. Par J. A. Fort, ex-interne des Hôpitaux de Paris, etc.

The Male Urethra, its Diseases and Reflexes. By Fessenden N. Otis, M.D., Clinical Professor of Genito-Urinary Diseases in the College of Physicians and Surgeons, New York, Consulting Surgeon to the New York Skin and Cancer Hospital, to St. Elizabeth's Hospital, etc. Physician's Leisure Library Series. Detroit: Geo. S. Davis. Cloth, 50 cents; paper, 25 cents.

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## REPORTS AND ANALYSES AND NEW INVENTIONS.

### Hypodermic Tablets.

We have received from Messrs. Parke, Davis & Co., samples of their tablets for hypodermic use. They include the combinations generally employed, as well as several of the more uncommon alkaloids. They are readily soluble in cold water, and can be given internally if desired. A small quantity of sugar of milk is used as a base in each tablet; when designed for diabetic patients, mannite is substituted.

## MEDICAL NEWS.

### LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held July 2d, 1888, the following physicians were granted certificates to practise medicine and surgery in this State:

Tandy Allen, Healdsburg; Bellevue Hosp. M. Coll., N. Y., Mar. 13, '88.
Alexander H. Bailey, Santa Cruz; Hosp. Coll. of Medicine at Louisville, Ky., Feb, 14, '83.
Godfrey Beaumont, San Diego; M. Dep. Univ. of Louisville, Ky., Mar. 2, '69.
Jason N. Conley, San Jacinto; Rush. M. Coll., Ill., Feb. 21, '55.
Thomas Flint, San Juan; Jefferson M. Coll., Penn., Mar. 28, '49.
Hiram L. Lewis, San Diego; Washington Univ. School of Med., Md., Feb. 21, '71.
Daniel E. Mason, East Oakland; M. Dep. Univ., City of New York, Feb. 18, '79.
Henry C. Murphy, Gonzales; Jefferson M. Coll., Penn., Apr. 2. '86.
Talleyrand D. Myers, Pasadena; Jefferson M. Coll., Penn., Mar. 28, '68.
James W. Thayer, Gilroy; Coll. of Phys. and Surg. at Keokuk, Ia., Feb. 25, '79.
Sampson Trask, San Francisco; St. Louis M. Coll., Mo., Mar. 7, '79.

The following persons were refused certificates on the ground of insufficient credentials: Samuel Gunn, Pasadena; H. C. Donaldson, Pasadena; Zederico Berann, Berkeley; Adam Frank, address unknown; David Schwartz, Los Angeles; A. B. Cobb, Oakland; Auguste Emilie Junker, San Diego.

The paper presented by Mrs. Junker is a certificate of a second class mid-wife, and prohibited her from practising medicine in her own country. Those presented by David Schwartz are only questionable certificates of a second class nurse, and prohibited the holder from practising medicine in the country where they were issued. One of said certificates shows evidences of erasure where his name is written; but his application was accompanied by the usual affidavit found in Section 3 of the medical law of 1878. Several incompleted applications were laid over with the expectation that they will be perfected immediately, as the Board does not intend to carry them indefinitely. Prompt action in complying with the law is required.

The Board has determined to publish the fourth edition of the Medical Register of California, which will be issued in December. It will, as heretofore, contain the names of all persons engaged in the practice of medicine in this State, properly classified; and all who have no license will be placed in the list of "Illegal Practitioners." Those who are entitled to certificates should procure them without delay, and spare themselves that mortification. Circular letters will be sent to every postoffice in the State, and it is hoped that every physician will feel interest enough in this work to promptly report his own name and address to this office, if he cannot report that of his neighbor. The Board cannot do effective work without the support and coöperation of the profession.

Blanks were sent out last year by the former Secretary and a few answers returned; but it has been so long since, that, considering the constant acquisition to our ranks and the migratory element in our profession, such information is not now deemed reliable. A complimentary copy of the book will be mailed to every licentiate of this Board in good standing in this State.

When the Register of 1885 was issued there were 485 persons who had no license reported practising medicine. Immediately thereafter an organized system of prosecutions was inaugurated, and when the Register of 1887 was issued there were only 164 reported. In 1885 the city of San Jose had twenty-one of these leeches, and when four of them had been convicted the town was freed of their presence, the Register of 1887 showing not a single one in the place, and only one in the county. What San Jose has done other towns may do by the same unity of action. The better class of the laity recognize that they are not qualified to judge of the competency of medical practitioners and look to the profession to lead in the matter of enforcing the law. We owe it to the public, to the profession, and to ourselves.

An organized system of prosecutions should again be inaugurated throughout the State, in which it is hoped all will engage with spirit. The occasion is propitious and the work is needed. It is unjust to require the better class of the profession to conform to the law and the code, while the vicious and ignorant are exempt for the want of prosecution.

In 1887 Arthur O'Leary was convicted in Yolo County, and fined $500. The case was appealed to the Supreme Court, which recently sustained the decision of the lower court, and the "doctor" has returned to his eastern home. P. Roscoe McNulty, who received a license from the Homeopathic Board of Examiners on a diploma from a Homeopathic school in Philadelphia in 1884, but which was revoked because of unprofessional conduct, has recently been tried three times in the Police Court for practising without a license. In the first trial the jury failed to agree, in the second the case was dismissed by order of the Court, and in the third he was convicted. He appealed to the Superior Court, which granted a new trial because of error in the ruling of the lower court, in not permitting the prosecution to show that the license had been properly revoked. The new trial was held before the same Superior Court, Sullivan, Judge, and resulted in another conviction. The case has been appealed to the Supreme Court, where it has been argued and submitted, and the Court has ninety days in which to decide it.

R. H. PLUMMER, Secretary.

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## Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from June 16th to July 16th, 1888.

Major Robert H. White, Surgeon, ordered from Angel Island, Cal., to Ft. Myer, Va. S. O. 142, A. G. O. June 20, 1888.

Captain Curtis E. Munn, Assistant Surgeon, ordered from Fort Klamath, Or., to Angel Island, Cal. S. O. 142, A. G. O. June 20, 1888.

1st Lieut. Edward R. Morris, Assistant Surgeon, leave of absence granted in S. O. 61, May 28, 1888, Dept. of Arizona, extended one month. S. O. 142, A. G. O. June 20, 1888.

1st Lieut. Eugene L. Swift, Assistant Surgeon, ordered from Ft. Spokane, W. T., to Ft. Klamath, Or., for temporary duty. S. O. 142, A. G. O. June 20, 1888.

Assistant Surgeon William B. Banister, leave of absence extended 27 days. S. O. 157, A. G. O. July 9, 1888.

1st Lieut. William D. Crosby, Assistant Surgeon, leave of absence extended one month. Par. 8, S. O. 151, A. G. O. June 30, 1888.